Value Creation Initiatives

The pages that follow highlight the azbil Group's unique initiatives focused on the entire value chain, from development to manufacturing, sales, engineering, installation, and service, as well as quality assurance and safety, and the human resource development that underpins all of this. Such initiatives are essential in order to enable the azbil Group to ceaselessly create value through automation.

At a Glance

BA Building Automation Business

Using original environmental control technologies to deliver comfort, functionality, and energy savings required by all buildings, we help create comfortable and efficient office and production spaces and reduce environmental impacts.

AA Advanced Automation Business

We develop advanced measurement and control technologies for factories and plants to help create production sites in which people can safely demonstrate their abilities. Through collaboration with our customers, we will create new levels of value.

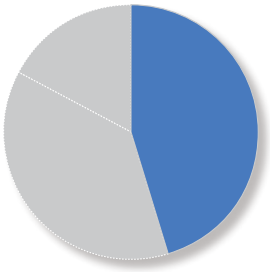
LA Life Automation Business

We apply our measurement and control technologies and services, amassed over many years in the BA and AA fields, to lifeline utilities such as gas and water, residential central air-conditioning systems, life science research, pharmaceuticals, and other sectors to help people enjoy active lifestyles.

Share of Net Sales by Segment

Sales, Segment Profit (Operating Income)

R&D Expenses, Capital Expenditures



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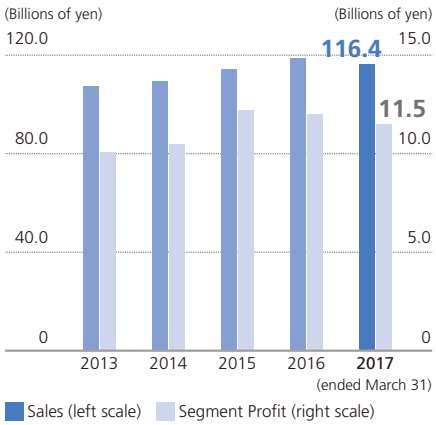

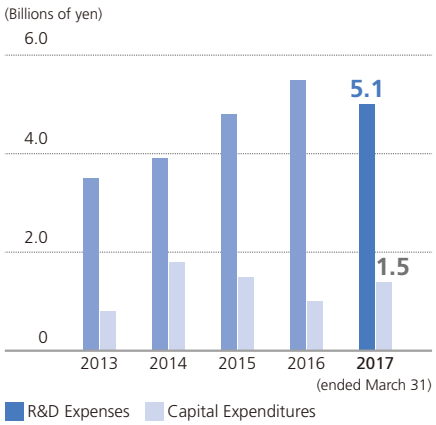

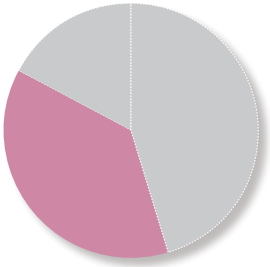

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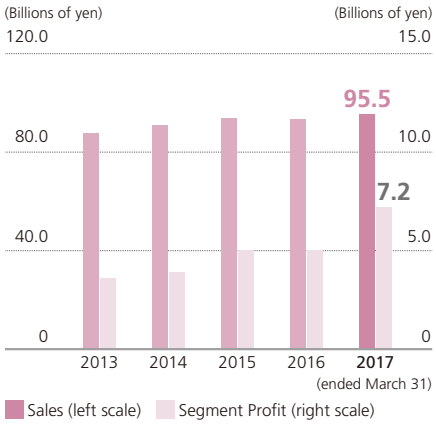

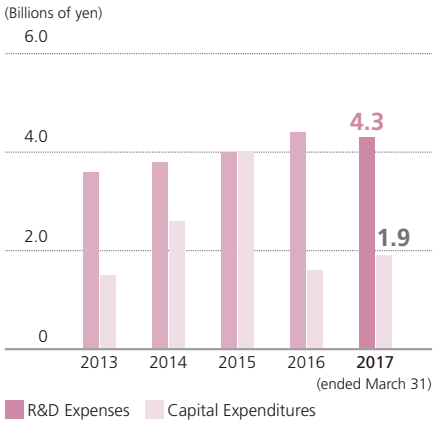

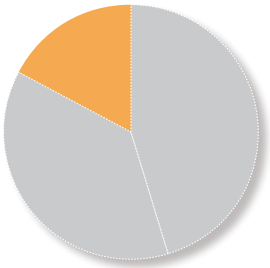

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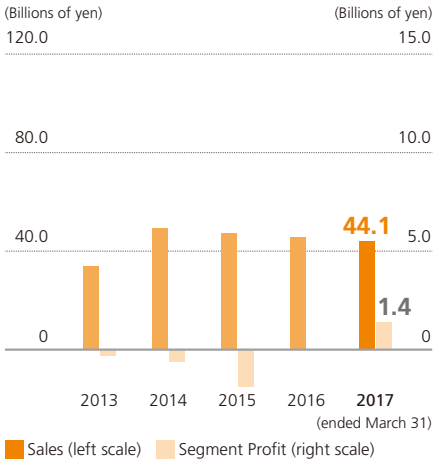
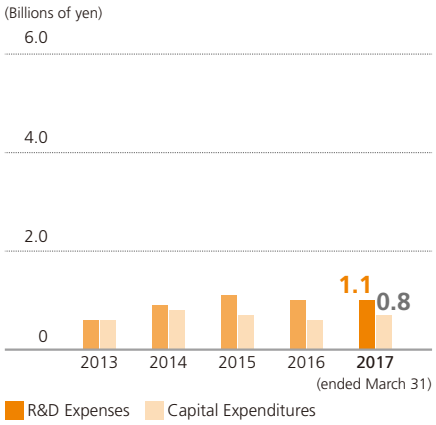




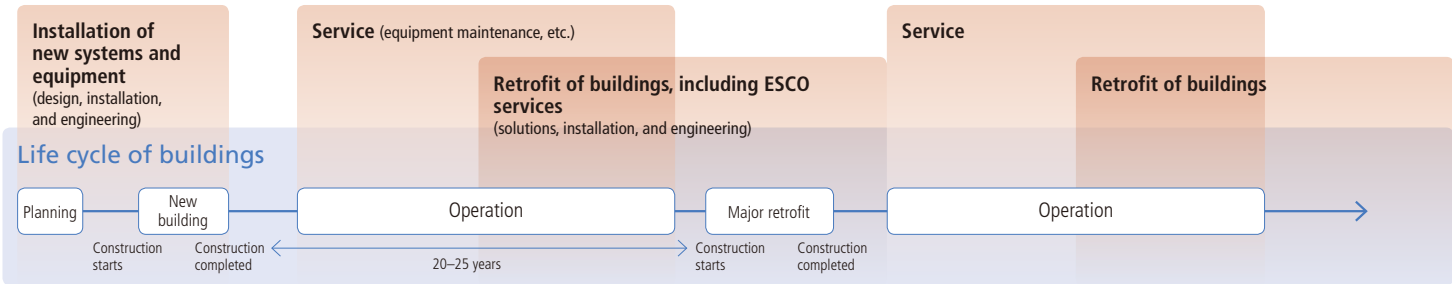
BA

Building Automation Business

Using advanced air-conditioning control technologies to provide indoor environments that combine comfort and energy conservation

Our Building Automation (BA) business provides a variety of products and services necessary for air-conditioning control of office buildings and other large-scale buildings, based on an integrated system ranging from development, manufacture, and sales of products and systems to engineering, installation, and maintenance services. We deploy our advanced automated air-conditioning control—combining control systems and application software for air-conditioning facilities with various devices (controllers, valves, and sensors)—and our proprietary environmental control technologies that create business and production spaces where people can work safely, efficiently, and in comfort, and that contribute to reducing environmental impacts. Using our strength in providing total solutions covering the life cycles of buildings, we foster safe operation and increasing the asset value of our customers' buildings over the long term. Our solutions range from construction of new buildings to maintenance services, retrofit of existing buildings, and energy-saving solutions.

Life Cycle of Buildings and Building Automation Business



- A pioneer in the field of air-conditioning control systems for Japanese large-scale buildings
- A lineup of services tailored to the life cycles of buildings
- Energy-saving solutions based on accumulated data

Business Fields Office buildings, hotels, shopping centers, hospitals, schools, research laboratories, manufacturing buildings, data centers, government offices, airports, etc.

Main Solutions and Services

Comprehensive Building Management Service

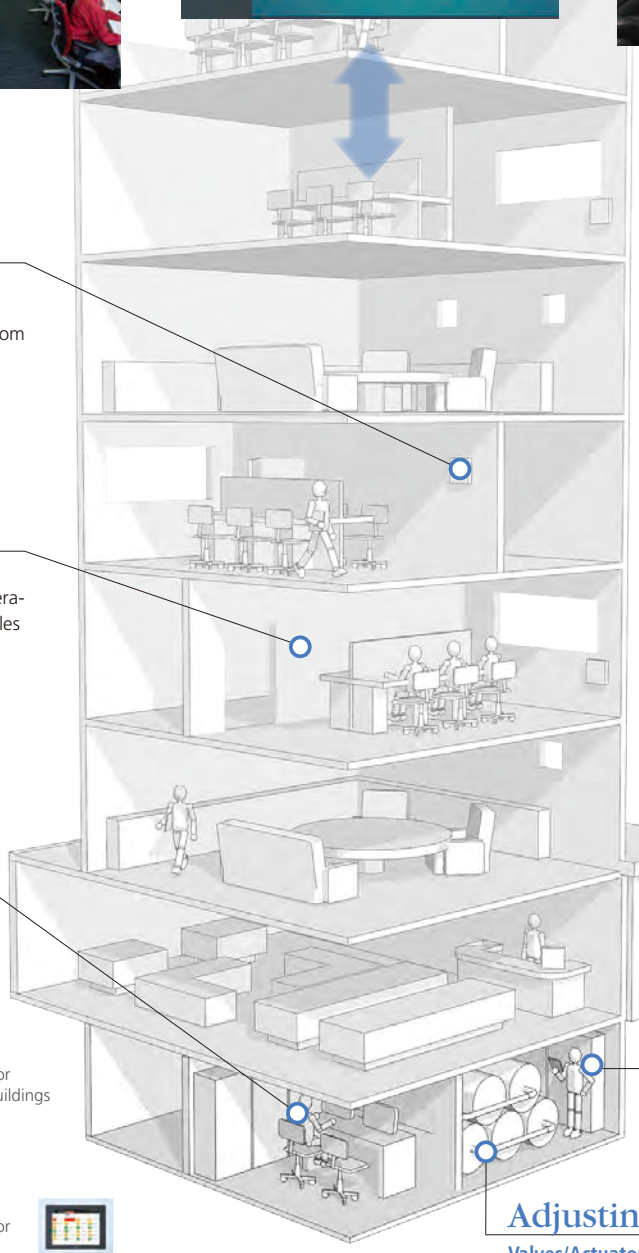
Round-the-clock services, including remote monitoring/control via communication lines linking buildings to our operation center, as well as inspection patrols and emergency response by engineers

Cloud Services for Buildings

More efficient energy and facility management and a more comfortable indoor environment in buildings

Total Energy Management Service

Global deployment of energy service company (ESCO) projects for buildings, helping to update and improve building facilities and reduce energy consumption



Detecting

Sensor and Measurement Devices

Sensing and measurement of room temperature/humidity

◀Room temperature/humidity sensor

Setting

User-operated Devices

Building users can set the temperature, humidity, and other variables

◀Digital user terminal

Managing

Building Automation Systems

Monitoring and management of the indoor environment, security, equipment, and energy usage throughout the building

◀BA systems for large-scale buildings

◀BA systems for small and medium-sized facilities

▲Wall-mounted BA systems

Protecting

Security Systems

Controlling access to building commons and interiors

▲High-end contactless smart-card reader

▲Contactless smart-card reader

Controlling

Regulators and Controllers

Control of building facilities and instruments to keep them in an optimal state

HVAC controller ▶

▲Heating/cooling plant controllers

Adjusting

Valves/Actuators

Optimal adjustment of the flow rates of hot/cold water or steam used in buildings

◀Motorized control valve with flow measurement and control functions

Building Automation (BA) Business

In addition to proper execution of new projects, we will expand our life cycle solutions business in Japan and overseas.

Keiichi Fuwa
Executive Director
Managing Executive Officer
President of Building Systems Company
Azbil Corporation

■ Operating Environment

In the year ended March 2017, as the Japanese economy showed signs of moderate recovery, the Building Automation (BA) business environment was steady. In the domestic market, construction demand arising from urban redevelopment projects in the Tokyo metropolitan area and the forthcoming Tokyo 2020 Olympic and Paralympic Games trended at high levels. In addition, demand for solutions aimed at saving electricity and energy and reducing CO_2 emissions of large-scale buildings remained brisk. Overseas, there has been growing awareness among emerging nations about the need to save energy and otherwise protect the environment.

■ Review for the Year Ended March 2017

Under these circumstances, we enjoyed solid demand for solutions aimed at saving energy and reducing operational costs, in addition to participating in multiple urban redevelopment projects in the Tokyo metropolitan area. Accordingly, sales in the domestic market for existing buildings, despite declining slightly, remained strong, and we enjoyed steady growth in the services field. Due to a temporary fall in sales in the market for new buildings, however, overall domestic sales remained mostly unchanged from the previous year. Overseas, we made steady progress in cultivating local markets, but the effects of foreign exchange factors and the transfer of shares in a subsidiary led to a decline in overseas sales.

Although the business environment for domestic large-scale buildings remained robust, we reported a year-on-year decrease in domestic orders. This was due to several temporary factors such as a decline in new construction projects, a revision made in the previous fiscal year to the way multi-year contracts are recorded, the impact of orders received for large-scale projects last year, and initiatives prioritizing profitability, etc. Overseas orders also declined due to the yen's appreciation lasted until the second half of the year and the transfer of shares in a subsidiary.

Despite an increase in sales in the profitable service market, segment profit declined as we assigned additional numbers of personnel to reinforce structures for ensuring on-site job processing capabilities.

Financial Highlights for the Year Ended March 2017

Sales ¥116.4 billion
(down 2.0% year-on-year)

Segment Profit ¥11.5 billion
(down 4.2% year-on-year)
(Segment profit ratio 9.9%)

- **Net sales declined year on year, due to a temporary dip in sales related to new buildings, a reassessment of our business overseas, and foreign exchange factors. This was despite growth in the domestic market for services.**
- **Segment profit was down, due mainly to increased expenses associated with enhancing job processing capabilities.**

■ Outlook

In the domestic market, we look forward to a solid business environment amid ongoing demand related to the Tokyo 2020 Olympic and Paralympic Games and to the urban redevelopment projects in the Tokyo metropolitan area. On the other hand, there are concerns that such brisk demand will lead to labor shortages and increased labor costs. Under these circumstances, in addition to projects already ordered, we will address growing demand by steadily carrying out job processing, including on-site construction, spearheaded by a team made stronger through personnel shifts within the Group. We recognize this as a starting point for building relationships of trust with customers and expanding and upgrading our life cycle solutions business, which will lead to an increase in maintenance and retrofit projects, earmarked as highly profitable in the future.

At the same time, we will step up proposal-based activities in conjunction with energy management and other services to address a major increase in demand for existing building retrofits expected after the Olympic Games. Currently new projects are increasing while we have many jobs in hand, however, we regard this timing as a good opportunity to tackle workstyle and operational structure reforms. To this end, we will promote more IT-intensive engineering and design and foster the creation of workplaces and sites that are highly productive and efficient.

In overseas markets, we have forged a strong reputation based on our track record of landmark projects, mainly in emerging Asian countries. We are also expanding acquisition of "Green Mark" certification to address growing awareness among building owners about energy saving and environmental protection. Taking advantage of these market conditions, we will leverage our strength in leading-edge energy-saving automation technologies accumulated in Japan. We will also introduce remote maintenance and other new products allowing us to deliver high-value-added services, as we do in Japan, with the aim of broadening the foundation of our life cycle solutions business model overseas.

New Building Automation System Launched Overseas

During the year, we began overseas sales of "savic-net™G5," a new building automation (BA) system incorporating IoT and other technological innovations. The new BA system is equipped with open communication protocols to allow optimal system construction, regardless of which company's products are used, and has an advanced interface and utility functions that emphasize user convenience. It also features an advanced energy-saving control system incorporating applications with proven track records in Japan. We have already delivered the system to commercial office buildings and airport facilities in Thailand, Singapore, Sri Lanka, and elsewhere, and we are expanding sales activities across Asia.

Azbil's Supervisory Device and its BACnet Advanced Controller & Advanced Remote I/O Module are the recipients of the iF Design Award and the Red Dot Award: Product Design 2017.

AA

Advanced Automation Business

Helping to solve problems at manufacturing sites to realize safe, comfortable, and ideal work environments

Our Advanced Automation (AA) business fields are broadly divided into the process automation (PA) field, related to the materials industry, and the hybrid automation/factory automation (HA/FA) field, related to the processing and assembly industry, and our products and services are provided in these fields via three sub-segments: CP, IAP, and SS. To solve problems at various manufacturing sites, including plants and factories, we offer products, solutions, instrumentation, engineering, and maintenance services that support the optimal operation of equipment and facilities throughout their life cycles. Working in collaboration with people involved in production, we aim to develop advanced measurement and control technologies and create production sites where workers can demonstrate their skills safely, while also creating new value for our customers.

Business Sub-Segments

Control Products (CP) Business
Provides digital instrumentation equipment, micro switches, sensors, combustion control equipment, and other components

Industrial Automation Products (IAP) Business
Provides field instruments, automatic control valves, and other components

Solution & Service (SS) Business
Provides control systems and service/maintenance

Solutions incorporating our expertise in both fields

Hybrid Automation/Factory Automation (for the processing and assembly industry)
For equipment manufacturers and end users of electrical/electronic devices, semiconductors, food, etc.

Process Automation (for the materials industry)
For sectors that supply production materials to the petrochemical, chemical, steel, and other industries

Business Fields

- Measurement and control manufacturer handling everything in-house, from development and production to maintenance
- Expanding the solutions business through a variety of applications

Business Fields **[Process Automation]** Petrochemicals and chemicals, oil refining, electric power and gas, iron and steel, waste management, water supply and sewerage, paper and pulp, ships, etc.
[Hybrid Automation/Factory Automation] Food, pharmaceuticals, automobiles, electrical and electronics, semiconductors, manufacturing equipment (industrial furnaces, machine tools and others), etc.

Main Solutions and Services

Services for Plants and Factories

Speedy and reliable services to ensure safe operation

- Support throughout the life cycle
- Maintenance support
- Operation support
- Facility diagnosis support

Energy Management

Optimal control of air, steam, cold water, hot water, electricity, gas, and other forms of energy used at customer sites, in order to support energy conservation and visualization, and address complex legislation

Adjusting

Control Valves

Optimal adjustment of the flow rates of gases and liquids at customer sites

◀Control valve and smart valve positioner

Measuring

Process Sensors

Measurement of flow rates, pressure, liquid level, and calorific value

◀Smart electromagnetic flow meter

▲Differential pressure and pressure transmitter

▲Natural gas calorimeter

◀Vortex flowmeter

Controlling

Controllers

Optimal control of processes, equipment, and facilities

▲Multi-loop controllers with multifunction display

▲Process controller

◀Network instrumentation module

Monitoring

Monitoring and Control Systems

Monitoring of manufacturing processes

▼Monitoring and control system

▲Device management system

▲Online anomaly monitoring system

Detecting

Sensors and Switches

Precise detection and high reliability to support a broad range of needs at customer sites

▲Laser sensor

▲Photoelectric switch

▲Advanced ultraviolet flame detector

▲Limit switch

▲Earthquake sensor

Advanced Automation (AA) Business

We will promote further our growth strategy and profit structure reforms in order to build a high-earning business segment offering world-class automation.

Yoshimitsu Hojo
Executive Director
Managing Executive Officer
President of Advanced Automation Company
Azbil Corporation

■ Operating Environment

In the year ended March 2017, corporate earnings in the domestic manufacturing sector continued to improve owing to a turnaround in exports and productions amid recovery in IT demand. However, companies maintained a cautious attitude with respect to capital investment.

Overseas, the outlook remained uncertain due in part to geopolitical risks, but the economic slowdown in China took a pause, while the U.S. economy remained healthy, buoyed by increased personal consumption and improved corporate earnings. Europe also enjoyed moderate economic recovery.

■ Review for the Year Ended March 2017

In this business environment, both orders and net sales in the Advanced Automation (AA) business were negatively impacted by foreign exchange factors. In and outside Japan, however, markets for semiconductor manufacturing equipment and other expanded, and we also benefited from active sales promotion activities for targeted products and regions under our three business units: Control Products (CP), Industrial Automation Products (IAP), and Solutions & Services (SS)*. Excluding foreign exchange factors, we posted real year-on-year growth in orders, while segment sales also increased, offsetting the foreign exchange impact.

While negatively affected by foreign exchange factors, segment profit jumped significantly year on year, owing to increased segment revenue and efforts to improve various facets of our profit structure.

* CP Business: Control Products (component business handling digital instrumentation equipment, micro switches, sensors, combustion control equipment, etc.)
IAP Business: Industrial Automation Products (component business handling industrial instruments, transmitters, automatic control valves, etc.)
SS Business: Solution & Service (control systems and service/maintenance business)

Financial Highlights for the Year Ended March 2017

Sales ¥95.5 billion
(up 2.1% year-on-year)

Segment Profit ¥7.2 billion
(up 43.3% year-on-year)
(Segment profit ratio 7.5%)

- **Net sales increased year on year owing to expansion achieved in the semiconductor manufacturing equipment market both in Japan and overseas, as well as active sales promotion activities for targeted products and regions.**
- **Increased sales and an improved profit structure led to a significant jump in segment profit.**

■ Outlook

Although the domestic market continues maturing, the operating environment for the AA Business is enjoying the benefit from strong demand for technological innovation aimed at enhancing production efficiency and manufacturing highly functional products. Together with recovery in the Japanese and global economies, the outlook appears favorable.

We made excellent progress in reforming our profit structure in fiscal year 2016, and going forward we will continue entrenching such reforms while broadening their scope and depth. We will also steadily build foundations for growth. This includes establishing a robust research & development system to address the changing technological trends of the so-called Fourth Industrial Revolution; strengthening our sales, service, and production systems to deliver overseas business growth; and modifying our business promotion systems according to shifting business domains.

Along with efforts to further strengthen our profit structure and business foundation, we will steer the Group on a steady growth trajectory. The AA business is advancing a wide range of automation businesses in both the domestic and overseas industrial markets. Under the management structure based on the aforementioned three business units, we will further strengthen the competitive segments of existing business fields while creating new competitive segments. Overseas, where room for growth is high, we will broaden customer coverage to accelerate business expansion.

The current Fourth Industrial Revolution is driving remarkable technological innovations in such areas as IoT, artificial intelligence (AI), and big data, and customers targeting further growth of their production sites are seeking to significantly advance their operations by exploiting such technologies. Viewing these changes as a golden opportunity, the azbil Group will leverage its original technologies and know-how to cultivate "new automation fields" that can deliver new levels of value desired by customers beyond levels seen to date. By using automation to become a leading company in individual business areas, we aim to become a high-earning business segment offering world-class automation.

Explained Azbil's Initiatives at the 4th Future Investment Council Meeting

At the fourth meeting of the Council on Investments for the Future, held at the Prime Minister's Official Residence on January 27, 2017, Hirozumi Sone, president and CEO of Azbil Corporation, explained the concept of "smart security using IoT technology."

Japanese manufacturers are facing various issues, such as aging facilities and retirement of skilled operators. Accordingly, there is a need for advanced technologies to ensure that the knowledge of skilled operators is passed down and improved upon. Such technologies include "using highly functional sensors to deliver optimal maintenance based on equipment diagnostic data" and "using big data for online monitoring/detection of anomaly and prediction/warning of irregularities." At the forum, Mr. Sone introduced specific examples of how Azbil has deployed its technologies to deliver "smart security," receiving high acclaim from attendees.

Source: Website of "The Prime Minister in Action," Prime Minister's Office, January 27, 2017 (Council on Investments for the Future)
(URL: http://japan.kantei.go.jp/97_abe/actions/201701/27article1.html)

LA

Life Automation Business

Supporting safe, secure, comfortable, and healthy living through measurement and control technologies

We are advancing our Life Automation (LA) business by deploying measurement, control, and metering technologies, cultivated over many years in the building and industrial markets, to expand our presence in new domains that support people's lives. Specifically, this business is focused in the following three fields.

Gas and Water Meters (Lifelines)

In December 2005, Kimmon Manufacturing Co., Ltd. (now Azbil Kimmon Co., Ltd.), which manufactures and sells city gas meters, LP gas meters, and water meters, became an azbil Group member. That company is a pioneer in metering instruments with a history of more than 100 years, having developed the first Japan-produced gas meter in 1904. It has a stable business foundation that benefits from cyclical replacement demand for gas and water meters as required by law.

Life Science Engineering (LSE)

Spain-based Telstar S.A. (now Azbil Telstar, S.L.U.), which supplies process equipment and environmental systems for pharmaceutical companies and laboratories, became a member of the azbil Group in January 2013. That company is advancing its operations globally, including in Europe, Latin America, and South Asia. For many years, it has built a track record and experience in engineering and the development of equipment and services related to life sciences.

Residential Central Air-conditioning Systems

In this field, we apply air-conditioning technologies for large-scale buildings to central air conditioning of detached houses. We provide comfortable, healthy living spaces via our central air-conditioning systems, which feature electronic air cleaners with PM2.5 pollen-removal performance, as well as variable air volume (VAV) control enabling temperature settings for each room.

- Gas and water meters: Benefiting from cyclical replacement demand
- LSE: Delivering an integrated products and services based on proprietary technologies to the pharmaceutical market
- Residential central air-conditioning systems: Providing comfortable, healthy living spaces

Business Fields **[Gas and Water Meters]** City gas (for homes/industry), LP gas, water supply (local government), etc.
[LSE] Pharmaceutical manufacturing, life science research & development
[Residential Central Air-Conditioning Systems] Ordinary detached houses

Life Science Engineering

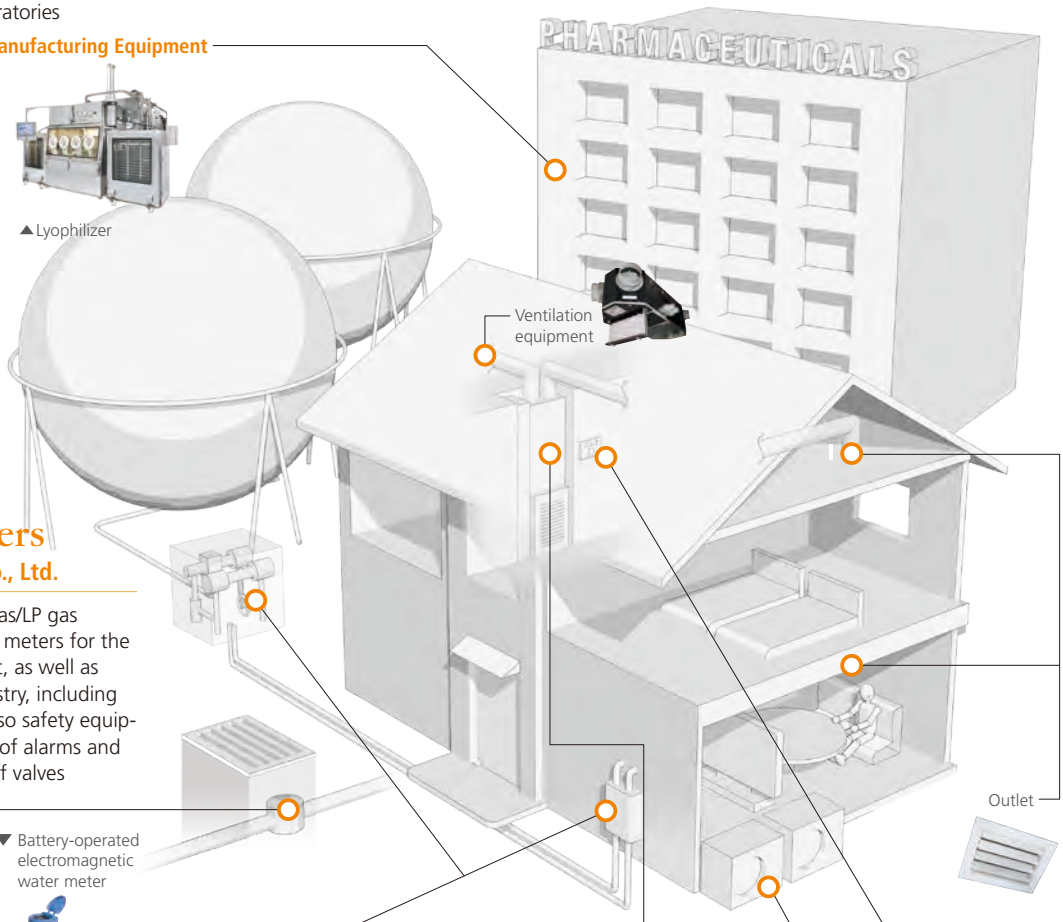
Azbil Telstar, S.L.U.

An integrated solution from the development, engineering, installation, and sale of lyophilizers, sterilizers, and clean environment equipment to after-sales services for pharmaceutical companies and research laboratories

Pharmaceutical Manufacturing Equipment

▲Barrier systems

▲Lyophilizer



Gas and Water Meters

Azbil Kimmon Co., Ltd.

Provision of city gas/LP gas meters and water meters for the household market, as well as products for industry, including regulators, and also safety equipment in the form of alarms and automatic shut-off valves

Water Meter

▼Water meter with a rotating display

▼Battery-operated electromagnetic water meter

Gas Meter and Regulator

▲Intelligent city gas meters

▲Intelligent LP gas meters

▲High-pressure regulator

▲Smart membrane-type LP gas meter

Residential Central Air-conditioning Systems

Azbil Corporation

Provision of air-conditioning systems for general detached houses, whereby cooling, heating, ventilation, air purification, and dehumidification is handled by a single air-conditioning unit, ensuring comfort for the entire house

Life Automation (LA) Business

We will establish a stable earnings structure and shift our focus to profit generation.

Tadayuki Sasaki
Executive Director
Executive Vice President
Responsible for the Life Automation business
Azbil Corporation

■ Operating Environment

The Life Automation (LA) business operates in three fields: lifeline utilities, such as gas and water supply; Life Science Engineering (LSE) for pharmaceutical manufacturers and laboratories; and residential central air-conditioning systems.

In the year ended March 2017, our business in gas and water meters (Azbil Kimmon Co., Ltd.), which accounts for the majority LA business sales, continued benefiting from cyclical replacement demand for LP gas meters as required by law. In the LSE field (Azbil Telstar, S.L.U.), demand for manufacturing equipment for vaccines and generic drugs remained on a recovery trend, driven mainly by emerging countries. As for residential central air-conditioning systems, we attracted many inquiries about our high-value-added air-conditioning systems for custom-built houses, which address the advanced, diversifying needs of customers seeking a comfortable and healthy indoor environment.

■ Review for the Year Ended March 2017

In this business environment, sales in the gas and water meter field increased, thanks mainly to higher sales of LP gas meters, which are entering a replacement demand period. Due to lower sales of city gas meters and growing research & development expenses, however, profit in this field remained mostly unchanged from the previous year.

Sales in the LSE field declined due to reassessment of our clean room business in Europe and South America and the yen's appreciation. However, we posted improved profit thanks to business reassessment and other structural reforms, as well as a reduction in amortization of goodwill.

In the field of residential central air-conditioning systems, we reported increased year-on-year sales owing to establishment of sales and development systems in the previous fiscal year, and the earnings structure was also reinforced.

As a result, the LA business posted a significant year-on-year increase in segment profit, despite a decline in segment sales. Orders received decreased, because large-scale projects

Financial Highlights for the Year Ended March 2017

Sales ¥44.1 billion
(down 3.4% year-on-year)

Segment Profit ¥1.4 billion
(Significant year-on-year increase)
(Segment profit ratio 3.2%)

- **Despite net sales increased in the fields of gas and water meters and residential central air-conditioning systems, sales in the LSE field declined due to the yen's appreciation and business structural reforms to emphasize profitability, resulting in an overall decline in segment sales.**
- **Segment profit improved significantly, driven by progress of business structural reforms in the LSE field.**

had been recorded in the previous fiscal year in the LSE field, and this was exacerbated by the impact of the yen's appreciation and a reassessment of the cleanroom business, etc.

■ Outlook

In the year ending March 2018, we expect growth in the LA business as a whole, driven mainly by higher sales of LP gas meters, which continue to benefit from increased demand for cyclical replacement. In the gas and water meter field, we will work actively to exploit business opportunities in the liberalizing energy supply market. We will also continue enhancing our products and cultivating a high-added-value solution-oriented business.

As part of these initiatives, we are working to develop products that support the next generation of communication technologies while advancing new services that utilize IoT technologies. For example, we are pursuing the practical application of innovative meter-reading solutions for water and gas supply in remote islands and mountainous areas. We are also using the latest long-distance wireless communication technologies to collect data from city gas, LP gas, and water meters, and participating in projects that contribute to local energy savings and environmental impact reduction.

In the LSE field, we made considerable progress with structural reforms in the year ended March 2017. We will continue working tirelessly to strengthen and improve our technologies and products through collaboration within the azbil Group, centered on manufacturing equipment for the pharmaceuticals market—an azbil strength—with the aim of establishing a stable earnings structure.

In the field of residential central air-conditioning systems, we will mobilize the Group's knowledge and technologies, amassed in the building sector, to bolster sales while delivering our unique, high added value. For example, we will differentiate ourselves by fitting our central air-conditioning systems for detached houses—which provide cooling, heating, ventilation, air purification, and dehumidification functions—with variable air volume (VAV) control to enable temperature settings for each room.

In these ways, we will entrench a solid earnings structure for the LA business, our third pillar after the Building Automation (BA) business and Advanced Automation (AA) business, and thus navigate this segment on a path to growth.

Deploying New "LPWA" for Practical Application of Automatic Meter Reading

On March 30, 2017, Azbil Kimmon Co., Ltd. began preparing for the introduction and practical application of an automatic water-meter reading system using SIGFOX* on remote island communities in cooperation with the Himeji City Waterworks Bureau. Azbil Kimmon is working together with DK Corporation, KDDI Corporation, and KYOCERA Communication Systems Co., Ltd. on the project.

SIGFOX is an example of low power wide area (LPWA) technologies that have attracted attention in recent years. It is a wireless communication technology allowing communication over much greater distances while using less power than existing technologies. We will continue promoting the practical application of efficient automatic meter reading systems for remote islands and mountainous areas where travel is not easy.

* SIGFOX: IoT-based network technology offered by Sigfox of France.

The azbil Group's Global Operations

In order to support problem-solving of our customers and society, we have established an integrated framework to provide total solutions. The azbil Group continues to create new values in close and organic coordination of our sales, development, manufacturing, and service locations in Japan and overseas ensuring customers' opinions and needs are quickly and optimally reflected in our solutions.

Global Development System

Technology research and product development at main bases in the three regions of Japan, the United States, and Europe

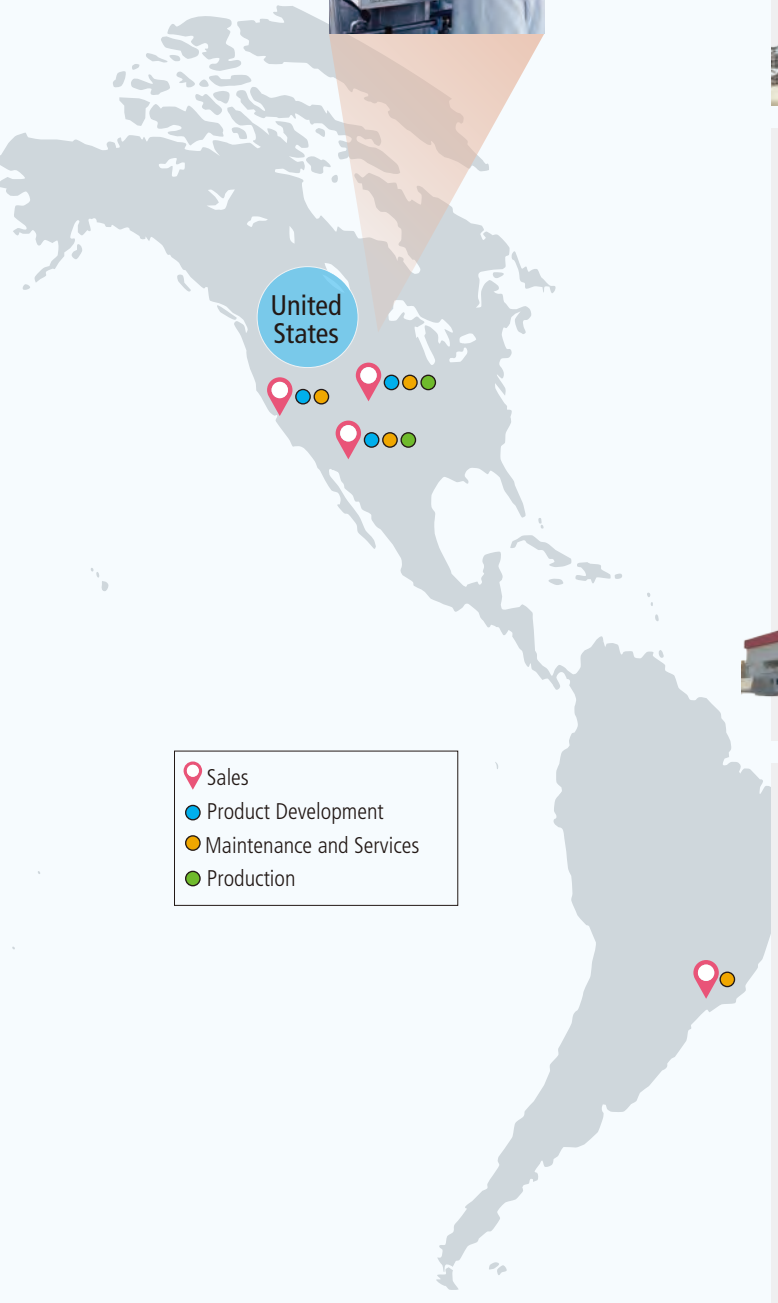
R&D bases
(Japan)
Azbil Corporation (Fujisawa Technology Center), and other four companies
(United States)
Azbil North America Research and Development, Inc.
Azbil North America, Inc.
Azbil VorTek, LLC
(Europe)
Azbil Europe NV (Belgium)
Azbil Telstar, S.L.U. (Spain)

Global Production System

Global manufacturing bases in the three regions of Japan, China, and Thailand, and providing services to meet the specific needs in each region

Major factories
(Japan)
Azbil Corporation (Shonan Factory, Isehara Factory), other four companies
(China)
Azbil Control Instruments (Dalian) Co., Ltd., and one company
(Thailand)
Azbil Production (Thailand) Co., Ltd.

* Shonan Factory and Isehara Factory will be merged and a new factory will be built at the location of the current Shonan Factory in 2019.

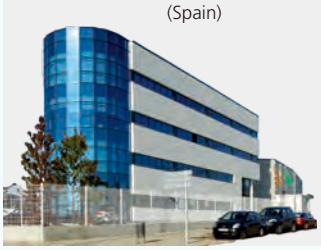


- Sales
- Product Development
- Maintenance and Services
- Production

R&D to Respond to Needs around the World

Our R&D centers in Japan, the United States and Europe, cooperate to develop products and solutions, while reflecting regional characteristics. Following our human-centered automation philosophy, these centers promote development of the cutting-edge technologies and new products that create values for customers and deal with changes in the environment.

Azbil Telstar, S.L.U. (Spain)



Fujisawa Technology Center (Japan)

Providing High Level Maintenance and Services Globally

Our solutions business maintains close contact with customers and resolves problems through a service network that extends in Japan and overseas. Our maintenance and services optimize the value of customers' equipment throughout its life-cycle, and we provide high value-added services and develop new products based on the valuable voices from the work sites.

Control valve manufacturing and maintenance base at Azbil Saudi Limited

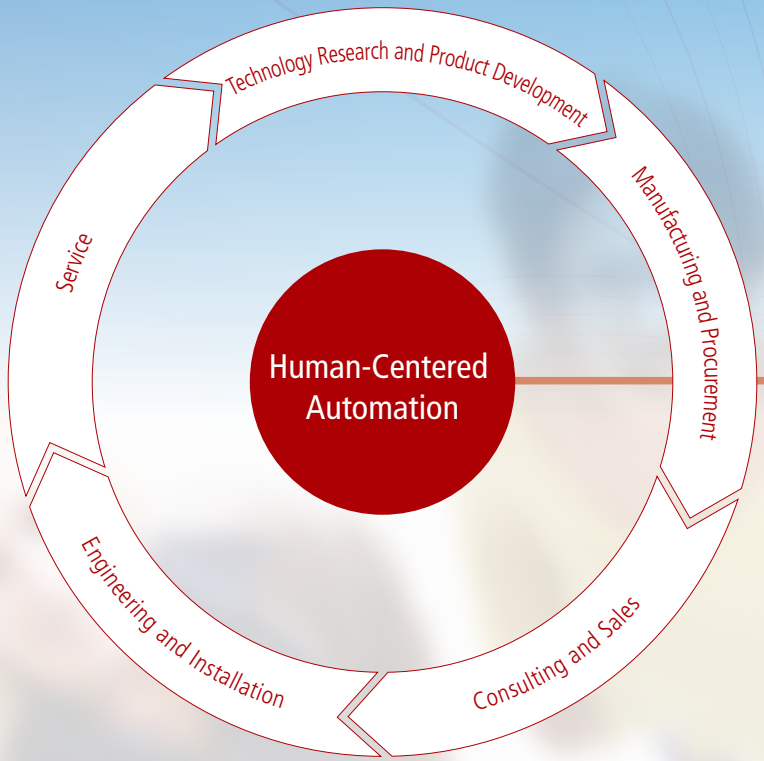
Remote monitoring center for comprehensive management and maintenance of buildings and factories

Production Systems that Deliver Reliability

At each of our domestic and overseas production locations we have constructed globally competitive production systems that can respond to changes in the market environment. By strengthening the collaboration among the companies and divisions that compose the azbil Group, we have been able to cut the lead time from development to manufacturing, and to provide products with a high level of homogeneity at the most appropriate cost to customers all over the world.

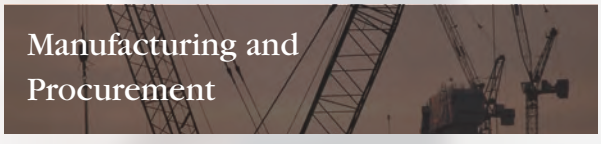
Azbil Production (Thailand) Co., Ltd.

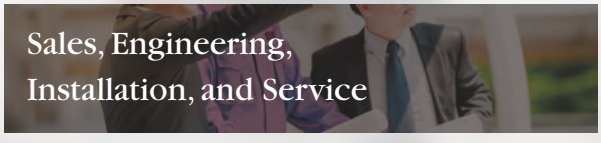
Azbil Control Instruments (Dalian) Co., Ltd.



A Strong Value Chain for Sustainable Growth

Based on its philosophy of "human-centered automation," the azbil Group creates value together with customers at their sites, and in so doing secures its own sustainable growth. The problems and needs of our customers and of society are changing with the emergence of technological innovations. Against this backdrop, we will continue working tirelessly to create value through automation by utilizing our integrated system, which covers everything from product development to manufacturing, sales, engineering, installation, and service.





Technology Research and Product Development

We plan and develop technologies and products in five strategic areas that we believe will play a key role in shaping the future of human-centered automation. We are also strengthening our R&D system and product development capabilities around the world to increase product appeal and provide a solid foundation for business growth.

■ Technology Research and Product Development Policy

Aiming to swiftly provide customers with next-generation products based on our Group philosophy, we are building an operational framework that emphasizes coordination between our marketing and R&D departments. Having identified five strategic technology areas through which we can deliver widely applicable value over the medium and long terms, we are pursuing original R&D initiatives while stepping up product development in areas of business that are growing. In keeping with our goals for global business advancement, we are developing technologies and products at our R&D base in Silicon Valley in the United States and at Group companies in Europe, as part of our three-base system located in Japan, the United States, and Europe.

■ Five Strategic Technology Areas

To provide constant and widely applicable value amid the changing business environment faced by our customers, who operate in a variety of areas—including the building market, manufacturing, housing, and infrastructure—we have identified the following five strategic areas for technological and product development. These areas were identified by taking into account factors such as the societal trends, changing needs of our customers, and technological innovations anticipated over the medium and long terms.

1. Machine Systems with Humanlike Abilities

Intelligent systems that bestow on machines a subtle sense of touch, humanlike perception, technical skills, or other human attributes, allowing the machines to work well with people.

2. Flexible Measurement and Control

Technologies allowing free measurement and control of objects in a way that was not previously possible due to circumstances of installation location, time, or environment.

3. Advanced Technology that Clarifies Complex Systems

Information technology that takes complex processes beyond the stage of "visualization" to that of "clarification" of status and problems, to enable advanced system control and enhancement.

4. Systems Enabling Us to Live in Harmony with Nature

Control technologies that learn from environmental changes in order to supply just the right amount of energy, bringing human activity (energy consumption) and environmental preservation into harmony.

5. Individualized Environmental Comfort Systems

Technology that maintains the optimal temperature distribution within a space, taking into account the location of human beings and other heat loads to swiftly provide a safe, high-quality indoor environment.

For more details, please refer to "Examples of Technology R&D" on pages 50-51.

■ Three Initiatives for Standardization

We are improving the reliability and safety of our products and services and thereby increasing our business competitiveness by optimizing quality (Q), cost (C), and delivery date (D) using three methods: applying international standards, standardizing technology, and enforcing measurement standards. Together with the application of IT to achieve results in the standardization of design and development, we are improving QCD, and we are making these efforts globally.

Standardization of Design and Development

Centralized knowledge management

- Thorough use of product information (e.g., QCD) based on a digital BOM (bill of materials)
- Thorough use of design data (e.g., technical reports, expertise, know-how)
- Increased use of standard components and technological standards

Front loading in development and design

- Early-stage coordination and thorough utilization of 3D data and digital BOMs
- Increased efficiency through sharing of product information from the start

Quality	Quality built into the design
Cost	Facilitation of target costing
Delivery	Earlier market launches
Global	Creation of a global network

■ Strategy for Intellectual Property Rights

In addition to respecting the intellectual property of third parties, we regard our own intellectual property as one of the company's most important resources, and for this reason we make efforts to acquire and protect patents and other rights.

We are working to reinforce our patent portfolio in cooperation with our business and R&D departments, and we are organizing our product and technology development fields in order to make focused R&D investments based on the analysis of other companies' benchmarks and patent information.

In priority development fields, we actively acquire patents related to basic and related technologies. At the same time, we endeavor to improve overall investment efficiency by discarding patent rights that have a low value in terms of competitiveness or business performance. In conjunction with our global business expansion, our marketing and development departments hold meetings with the Intellectual Property Department before filing applications for patents overseas in order to determine the importance of the relevant technology for our business strategy.

In addition, to spark creativity that will lead to numerous inventions and enhance our competitiveness, we have revised our incentive system in order to raise employees' motivation to invent. Under the new system, we have improved transparency by disclosing the formula used to calculate incentive payments in response to Japan's revised Patent Act.

■ Brand Management

We have enacted Group-wide regulations governing the use of the company name, logo, and other elements of the azbil brand, and we strictly adhere to these regulations around the world. To protect our brand, we have aggressively registered the Group's "azbil" logo as a trademark in about 100 countries worldwide.

We also endeavor to register our main products in this way around the world.

azbil
阿自倍尔株式会社
("Azbil Corporation" in Chinese)

In light of the increasing unauthorized use of logos on the Internet, we strive to uncover any infringements and deal with them strictly.

Patent and R&D Data

(Ended March 31)	2013	2014	2015	2016	**2017**
Patents					
Number of applications	476	502	513	506	**506**
Number owned	2,124	2,458	2,703	2,762	**2,902**
R&D expenses (billions of yen)	7.8	8.8	10.1	11.0	**10.4**
R&D expenses/net sales (%)	3.4	3.5	4.0	4.3	**4.1**

Examples of Technology R&D

1. Machine Systems with Humanlike Abilities

Noncontact automatic loading and unloading system

Value provided

This system automatically transports containers filled with chemicals used in freeze-drying equipment for the manufacture of pharmaceuticals. It is superior to conventional models in terms of cleanliness and sterilization and requires less space.

2. Flexible Measurement and Control

Model F7M thermal micro flow rate liquid flowmeter

Value provided

This device enables measurement of the instantaneous and integrated flow rates of micro flow rate liquid flow at levels of 100 milliliters per minute or less, which was difficult to achieve with high reproducibility using previous systems. It also incorporates IoT technology to manage the quality control of the manufacturing process and detect any process abnormalities.

3. Advanced Technology that Clarifies Complex Systems

Model C7G multi-loop controllers with multifunction display
Health index function

Value provided

Our health index function enables the prediction of control loop abnormalities in manufacturing equipment. This could not be done using conventional alarm functions. By making appropriate equipment maintenance possible, it improves productivity.

4. Systems Enabling Us to Live in Harmony with Nature

savic-net™G5, a new type of building automation system

Value provided

This system incorporates recent technological innovations such as cloud computing and IoT, and adopts an open network. It provides advanced user interface and high-speed monitoring and control, and ensures the best working experience for people involved in facility management tasks.

5. Individualized Environmental Comfort Systems

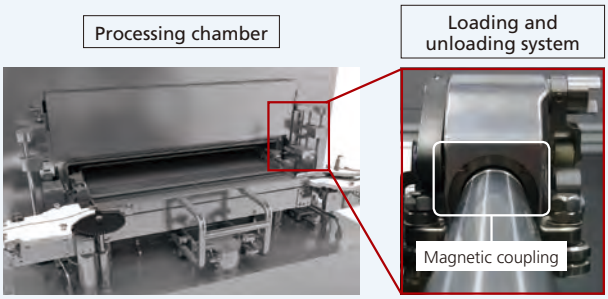
Whole-house VAV air-conditioning system

Value provided

This is a central air-conditioning system for houses that handles room-specific load fluctuations to allow individual room temperature settings and switch-offs, resulting in greater comfort and energy savings.

Development details

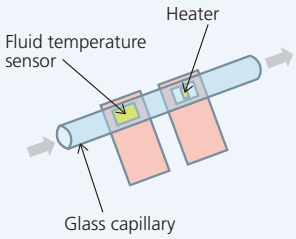
We combined a permanent magnet and magnetic materials to develop a magnetic actuator that uses a noncontact drive mechanism to position objects, helping to reduce the risk of product contamination from dust generated by sliding parts. Quality consistency is further assured by automatic washing and sterilization of the transporter mechanism within the freeze-drying equipment. Moreover, the absence of a hard-to-clean bellows cover helps to reduce the burden on maintenance workers, whose work previously included cleaning and replacing the cover and checking for leaks.



Development details

We incorporated a thermal MEMS sensor with a proven track record into a gas flowmeter and a silica glass flow path with high corrosion resistance, with the aim of reducing the effect of changes in the state of the fluid (bubbles, pulsation, fluid and ambient temperature, etc.) and facilitating corrections to fluids characteristics (due to thermal conductivity of the fluid). We also deployed alternative methods for pump speed and stroke management, weight measurement, and fluid supply time management to realize more reliable data management.

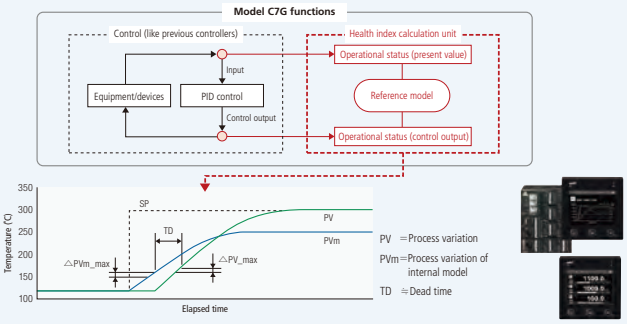
Model F7M thermal micro flow rate liquid flowmeter



Measuring component

Development details

Our health index function, which is a technology patented by Azbil Corporation, was developed as a way to quantify the control characteristics of manufacturing equipment based on control theory. Model C7G is networkable, enabling edge computing instead of uploading the Health Index to the cloud or the like. It is also compatible with IoT technologies for smart factory manufacturing equipment.



Development details

We rebuilt our building automation system from scratch with technological innovations to make it competitive globally. We adopted global standard protocols, and also developed an advanced user interface and a high-speed monitoring and control that are superior to other companies' systems. Moreover, we ensure high reliability system with redundant technology as network connectivity and storage. In addition to storing diverse data that are applicable to any usages, the system has capability for cloud systems and IoT.

Development details

This system's low-power design enables control signals and power for 16 variable air volume (VAV) units to be handled with a single cable, eliminating the need to install a power supply for each unit. It also uses a generalized air volume control algorithm to compensate for fluctuation caused by changes in other VAV units' airflows. In addition, we optimized the system for residential use by employing our unique air volume damper mechanism, which allows maintenance to be performed from the air-conditioning outlet so that the installation of dedicated VAV inspection doors is not needed.

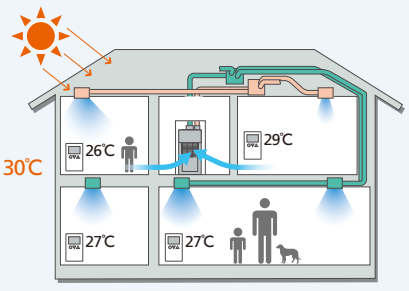
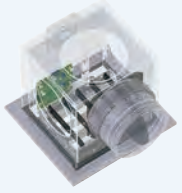


Diagram of home VAV central air-conditioning system



Sketch of VAV outlet

Manufacturing and Procurement

Adopting a global perspective throughout the Group, we are optimizing our production and logistics systems for individual regions and products in order to build a competitive production framework capable of weathering changes in the business environment.

■ Constructing Manufacturing System for Japan and Overseas

Aiming for an optimal production system to underpin our global business development, we are working to expand overseas production, strengthen our manufacturing capabilities, and enhance our logistics framework via a network of bases in the three nations of Japan, China, and Thailand. At our production base in Thailand, which was built and began manufacturing in 2013, we are continuing to expand the scale of production, particularly of components, and we plan to enlarge the facility early in 2018. At our production base in Dalian, China, as well, we are continuing to increase the manufacturing capacity for valves and differential pressure and pressure transmitters.

In line with our expansion of overseas production, we are working to build an efficient logistics system, ranging from parts procurement to product shipment. With respect to parts, we are expanding overseas procurement to reduce costs while establishing and reinforcing a global procurement system that allows most-favorable procurement from each nation and region. In addition, we are building a logistics framework that enables direct sale and shipment of products from overseas production bases to various countries, and we are promoting the use of beneficial tax arrangements provided by free-trade agreements and the like.

Concurrently, Azbil Kimmon Co., Ltd., is optimizing its production system by consolidating seven domestic plants into five, with the aim of addressing changes in the business environment and customer needs.

By stepping up these initiatives, we intend to raise the percentage of overseas production to a little over 30% within several years.

■ Constructing a New Main Factory for the azbil Group

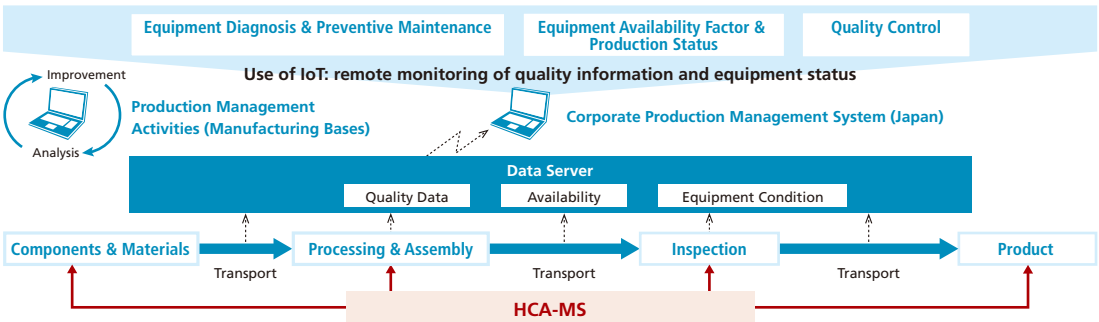
As part of measures to optimize our domestic and overseas production system, we will consolidate the Shonan Factory and Isehara Factory to form one facility at the Shonan Factory, which will be the Group's main domestic production base. We will also construct a new factory by the spring of 2019 with production lines equipped with advanced equipment and technology. Our plan is for the new factory, in collaboration with the R&D facility at our Fujisawa Technology Center, to spearhead advances in manufacturing sophistication across the Group.

■ Innovations in Production

Seeking to improve the efficiency and quality of production processes, we are pursuing technological advances in a variety of areas, such as production, assembly and processing, and image processing. Based on the azbil Group's unique HCA-MS* concept, we are making efforts to promote advanced automation by deploying technologies like AI and the IoT to mechanize human activity, including processes previously difficult to automate due to the necessity of human work or judgment. We will extend the application of these efforts from domestic factories to overseas facilities as we strive to maintain and improve product quality globally while strengthening cost competitiveness.

An example of a production line with HCA-MS

Production Lines Using HCA-MS



* Human-centered automation manufacturing system. Based on our Group philosophy of human-centered automation, the system is equipped with machine accuracy and human flexibility through the mechanization of aspects of human intelligence and capabilities of the human hand (sense of touch) and eye (sense of sight), enabling the automation of processes that could not be automated with conventional technologies. Modularized functions allow reuse, so production equipment can be altered or extended as needed.

Sales, Engineering, Installation, and Service

Based on an integrated framework encompassing everything from consulting and sales to engineering, installation, and service, we make use of the knowledge and skills cultivated at customer sites to offer high value-added solutions and services across the globe.

■ Total Solutions

To maximize value throughout the life cycle of our customers' facilities, we provide total solutions on the basis of our unique integrated framework, covering everything from consulting and sales to engineering, installation, and service. To meet a variety of needs at each stage of the facility life cycle—including planning, operation, maintenance, improvement, and renovation—our sales engineers, system engineers, field engineers and service engineers are committed to providing the best solutions for each manufacturing site.

Sales, Engineering, Installation

Our customers share with us the needs and problems they experience with their buildings, plants, and factories, and we help them to find solutions through our integrated framework, starting from analysis and proposal of solutions, and continuing through design, installation, and system adjustment.

For example, in the area of building air-conditioning control, which is handled by our building automation (BA) business, each type of building—whether it is an office building, hotel, or hospital— presents its own special problems, depending on its intended use and characteristics. Based on the know-how and actual operating data that the azbil Group has accumulated over many years, our sales engineers provide consultation and propose the best BA system or control system for each facility, or the best energy-saving solutions and services, in consideration of the purpose and manner of use of the facility. Our field engineers, drawing upon their deep knowledge of products and experience in the field, manage the construction process details, including process safety, quality and cost, in addition to field engineering, in order to control the process in a way that meets customers' specifications.

In our advanced automation (AA) business, we hear various requests from customers regarding their manufacturing sites. When our sales engineers propose energy-efficiency measures for a factory, for example, they conduct an energy analysis and estimate the effectiveness of investment in energy-efficiency measures before proposing a solution to the customer. For the improvement of manufacturing processes, our sales engineers investigate the manufacturing site's actual operation, examining the problems and pursuing the solutions together with the customer, and then propose an application that is able to take advantage not only of Azbil Corporation products but also products of Group companies that meet the customer's needs. If the proposal is accepted, our system engineers, who are well-versed in advanced technology, draw the system design and develop an application to build a high-performance and high-quality system. In response to the request of a customer who is an equipment manufacturer, we not only provide products, but also propose applications and customized systems as a partner in the equipment design and development stage, based on the relationship of trust we have established to date.

Service

Our service engineers, who are thoroughly acquainted with the customer's processes and systems, provide optimized operation, regular inspections, and maintenance services, and respond swiftly in the event of an urgent problem. In addition, we listen to our customers. By incorporating their views swiftly and surely into our products and services and sharing them with others in the azbil Group, we improve our technology and services in the field and make them more efficient.

■ Synergy Activities of the azbil Group

The azbil Group puts a strong effort in the activities to expand each company's own value to another group companies and all customers of the Group across companies. Each branch office in Japan conducts a meeting on a monthly basis in which the sales engineers from Group companies get together to discuss business solutions for customers and to learn more about the products. Because we focus on "value creation on-site," the engineers from Group companies also meet and conduct surveys at customers' sites from time to time. Viewpoints of other companies bring out fresh ideas and unexpected discoveries, and sometimes enable us to provide completely new solutions for our customers. We believe that, with this approach, we can stimulate the creation of special value that is unique to the azbil Group.

■ Restructuring of the Service Business

In the service area, we are advancing the transformation of our operations from a conventional labor-intensive model to knowledge-intensive services that make use of our extensive data and experience. In addition, we are upgrading and reinforcing our infrastructure and training additional personnel so that we can provide the same level of service overseas as we do in Japan.

Knowledge-Intensive Services

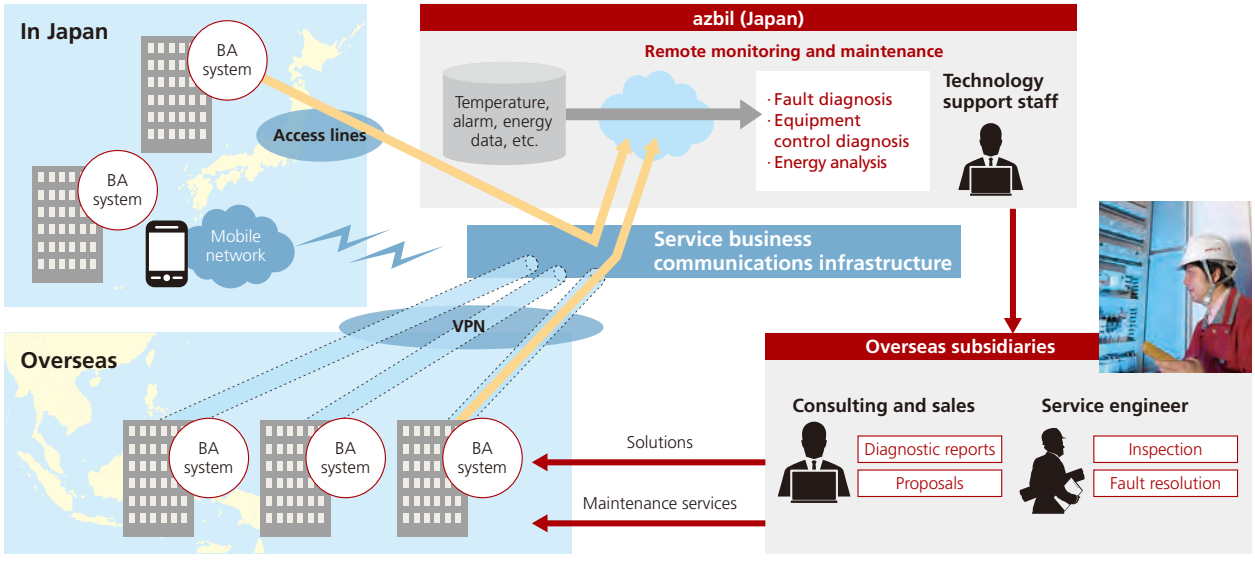
Cutting-edge technology and a wealth of know-how available only to professionals in the field of control and management are now being applied to the development of tools for use in our service operations. The use of service tools not only increases the efficiency of on-site inspections, but also ensures that automatic control instruments are maintained appropriately through remote data collection and event analysis and off-site inspection of control operations by experts. Self-diagnostic information from equipment is gathered and analyzed to ensure that systems are operating in an appropriate way at all times and to facilitate rapid recovery in the event of a problem. This enables us to suggest preventive maintenance aimed at maintaining the reliability of the system.

Global Expansion of the Service Business

Our solutions-oriented valve business (for integrated supply and maintenance of control valves) has expanded to the Middle East and North America, in addition to main bases in locations including China, Taiwan, Thailand, Singapore, and Indonesia. We are also beginning to develop a service infrastructure that will allow us to monitor overseas buildings remotely, so that we can offer efficient maintenance and energy conservation.

Remote center for comprehensive monitoring of buildings and factories

Remote Services Platform (Operation Example for the BA Business)



Quality Assurance and Safety of Products and Services

The azbil Group delivers safe and dependable products and services of assured quality to customers globally.

Safeguarding the Quality, Safety, and Dependability of Our Products and Services

A number of documents governing the entire azbil Group spell out its basic policy and approach to quality assurance and safety: the azbil Group Basic Quality Policy, azbil Group Quality Assurance Rules, azbil Group Basic Policy on the Safety and Dependability of Products and Services, and azbil Group Rules for the Safety and Dependability of Products and Services. Additionally, each Group company has its own detailed rules and standards.

■ The Quality of Our Products and Services

Because "built-in quality" is vital when developing products and providing services, we set quality targets for every azbil Group company. The azbil Group Quality Assurance Committee meets regularly to check the achievement of quality targets and the progress of quality improvement initiatives by azbil Group companies. The committee also helps the Group as a whole to build in quality by identifying shared quality issues and improving collaboration in tackling them. Quality-related structures and procedures are being rolled out globally as our business expands.

■ Safety and Dependability of Our Products and Services

Our efforts to ensure the safety and dependability of products and services are founded on the three key pillars of compliance with relevant laws and regulations, prevention of accidents, and provision of safe products.

Compliance with Relevant Laws and Regulations

The Legal and Intellectual Property Department and the aG Quality Assurance Department cooperate in regularly educating azbil Group employees concerning the Product Liability Act, the Consumer Product Safety Act, and other legislation relevant to the safety and dependability of our products and services. These departments also endeavor to promote understanding and awareness among the relevant employees concerning accident prevention measures and the procedures to follow in the event of an accident.

Prevention of Accidents

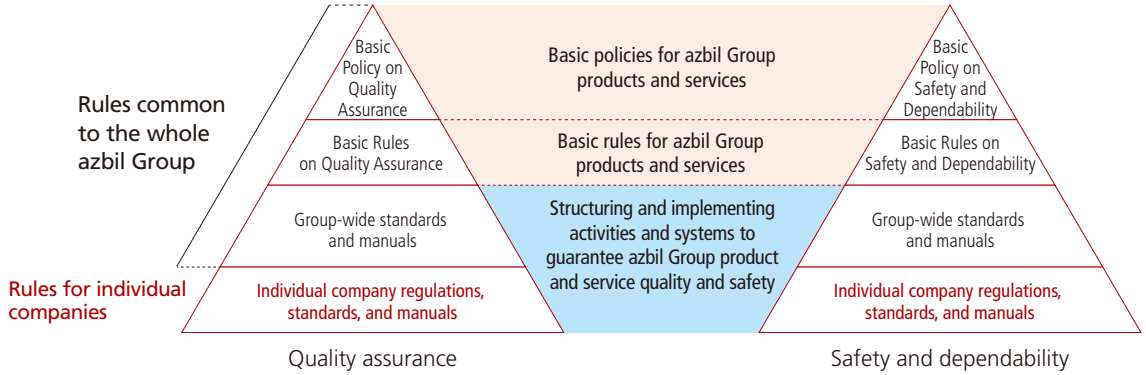
The azbil Group Quality Assurance Committee promotes accident prevention activities based on actual "near miss" incidents. In addition, it is responsible for ensuring that employees are thoroughly aware of the reporting and response systems used in the event of an accident. Through these activities, it strives to prevent situations that could be detrimental to the safety and peace of mind of our customers.

Provision of Safe Products

We have established safe design standards, along with a risk assessment and authorization system. The development departments and service departments of each business segment carry out product risk assessment under the guidance of the Department of Safety Assessment.

Systems for Quality Assurance/Safety and Dependability

To ensure that the azbil Group can continue to provide products and services that our customers can trust, we have established, and we put into practice, the policies, rules, standards, and manuals illustrated below.



Human Resources

— Developing diverse personnel who can make "A Company that Never Stops Learning" a real

In order to respond flexibly to changes in the business environment, we established the Azbil Academy as an organization dedicated to the development of human resources, and we actively cultivate diverse personnel around the world.

The Azbil Academy

The Azbil Academy was founded in November 2012 to provide integrated education and human resource development functions for the Group as a whole. In the year ended March 2017, its fifth year of operation, it launched the initiatives described below.

■ Career Development

Personnel Deployment for Structural Enhancement and Education for Transferred Employees

The azbil Group is carrying out business structural reforms that include the promotion of overseas operation, the training of field engineers and service engineers both in Japan and overseas, and responses to Olympics-related demands. Accordingly, to accomplish the optimal deployment and training of personnel, the Azbil Academy has deployed approximately 600 people in total and provided education to 170 employees who were transferred to another business line or occupation since the year ended March 2013.

Development of Software Engineers

Software engineer education has been reinforced to cultivate personnel who can carry out the development of products that take advantage of technological innovations in areas such as the IoT, AI, and big data as well as service business that takes advantage of IT infrastructure, and personnel to implement the computerization of engineering, design, and other areas for operational efficiency. In the year ended March 2017 we trained 50 software engineers.

■ Global Human Resource Development

Global Leader Education

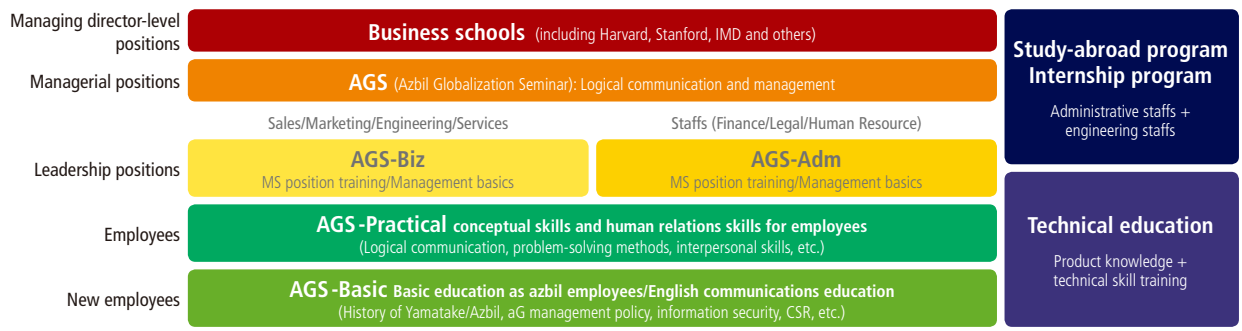
As a part of human resource development to further the Group's fundamental policy of "taking global operations to the next level," the basic policy of the Group, we started to provide the training sessions in the year 2014 to foster leaders for the global business with strengths in logical thinking, problem-solving skills, and communication ability. The year ended March 2017 was already the third year of this global business training. Japanese employees take the training courses together with the employees of overseas subsidiaries, and all of the lectures and discussions are in English. We have trained more than 40 global leaders in total as of the end of March 2017.

We have also offered, since the year ended March 2016, a management training program for employees in leadership positions in order to enhance human resource development at overseas subsidiaries. In the year ended Marcy 2017 we expanded the program to subsidiaries in China, South Korea, and Thailand.

Development of Staff of Overseas Subsidiaries

In the year ended March 2017, we started a study-abroad program that enables administrative staff of overseas subsidiaries to come and study at Azbil's headquarters in Japan. The main goals of this program are for the staffs of overseas subsidiaries to learn and understand Azbil's CSR management, and to build up a network of personal contacts between employees in Japan and the staff of overseas subsidiaries. The staff of subsidiaries in China and Taiwan have previously been able to take year-long training courses in the year ended March 2017.

Global Human Resource Development Program



■ Human Resource Development for the Solutions Business

Recognition System for Technical Professionals

In the year ended March 2015, we introduced a system to award the title of "Technical Professional" to azbil Group employees with top-class technical skills who improve the level of technical ability and pass on technical know-how to younger employees. As of the end of March 2017, the title has been given to five top-class engineers from the building automation (BA) business and two top-class engineers from the advanced automation (AA) business.

Education for the Solutions Business

We have established a training system that will provide young employees in Japan with level-specific education on an accelerated schedule so that they can acquire important business skills at an early stage. The program is designed especially to enhance young employee's logical communication skills and cultivate their ability to recognize and solve problems. Based on the aforementioned soft skills, we started a selective education program specialized in each line of business and occupation in the year ended March 2017.

Positioning of Technical Professionals

The President of the Azbil Academy Emphasizes — Human Resource Development in the azbil Group —

Akihiko Naruse

President of the Azbil Academy
Executive Officer
Azbil Corporation

(With a statue of the founder, Takehiko Yamaguchi)

The two approaches of "work-style reforms" and "promotion of diversity" are necessary in order to proceed with business and operational structure reforms in response to environmental changes such as globalization and technological innovation, so that we are to be "a company that never stops learning." The two approaches are like two wheels on which everything rolls and the engine, the driving force, is human resource development and its utilization (the exercise of developed skills).

Human resource development in the azbil Group, which has a 111 year history, has always focused on and treasured the following.

1. **Passing down the founder's belief that a relationship of mutual trust with customers comes first**
2. **A Focus not only on the acquisition of technical skills but also on soft skills (like problem-solving ability)**
3. **The concept of "creating values on site": growth through collaboration with customers**

We will continue to develop human resources who will be the driving force of our new medium-term management plan for the fiscal year 2017-2019, which is the foundation for the azbil Group's future, and who will undertake business and operational structural reforms.