AIR WATER ANNUAL REPORT 2013　Year Ended March 31, 2013

PLOTTING OUT FURTHER GROWTH

ANNUAL REPORT 2013

Year Ended March 31, 2013

AIR WATER INC.

Management Philosophy

We dedicate ourselves and our resources backed by the entrepreneurial spirit and pride in creation and development of businesses linking air, water, the earth, and humans.

Consolidated Financial Highlights (Comparison of the past 5 fiscal years)

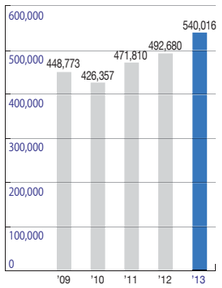
AIR WATER INC. and Consolidated Subsidiaries, Years ended March 31

					Million of yen	Thousand of U.S. dollars*	Increase (Decrease)
	2013	2012	2011	2010	2009	**2013**	**2013/2012**
Net sales	**¥540,016**	¥492,680	¥471,810	¥426,357	¥448,773	**$5,741,797**	**9.6 %**
Cost of sales	**429,862**	380,536	359,560	320,758	344,317	**4,570,569**	**13.0**
Selling, general and administrative expenses	**82,257**	80,472	80,981	77,397	78,677	**874,609**	**2.2**
Ordinary income	**35,156**	33,602	32,959	29,020	27,874	**373,801**	**4.6**
Net income	**18,366**	17,167	11,680	13,916	12,681	**195,279**	**7.0**
Comprehensive income	**21,197**	16,005	11,293	—	—	**225,380**	**32.4**
Total assets	**484,329**	430,547	407,639	392,759	385,563	**5,149,697**	**12.5**
Total net assets	**199,212**	182,700	169,127	163,950	143,230	**2,118,150**	**9.0**
Cash flows from operating activities	**30,057**	39,662	32,576	44,593	27,884	**319,585**	**(24.2)**
Cash flows from investing activities	**(42,501)**	(28,695)	(34,766)	(25,820)	(39,999)	**(451,898)**	**48.1**
Cash flows from financing activities	**10,254**	(7,612)	(1,592)	(20,615)	22,784	**109,027**	**—**
Cash and cash equivalents at end of year	**19,470**	21,562	18,131	21,529	23,185	**207,018**	**(9.7)**

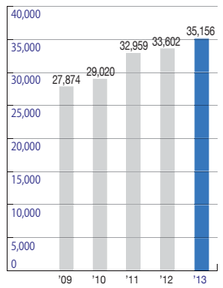
PER SHARE OF COMMON STOCK					Yen	U.S. dollars*	
Net income - basic	**¥94.04**	¥89.35	¥61.24	¥73.64	¥68.56	**$1.00**	**5.2**
Net income - diluted	**93.87**	87.21	59.56	70.03	68.49	**1.00**	**7.6**
Cash dividends applicable to the year	**24.00**	22.00	22.00	22.00	22.00	**0.26**	**9.1**
Net assets	**949.63**	873.78	822.05	789.89	715.60	**10.10**	**8.7**

*Translation into U.S. dollars has been made solely for the reader's convenience at the rate of ¥94.05 = U.S. $1.00, the rate prevailing on the Tokyo Foreign Exchange Market on March 31, 2013.

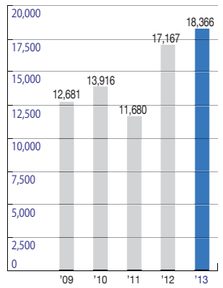
■Net Sales (Million yen)



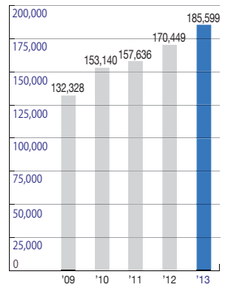
■Ordinary Income (Million yen)



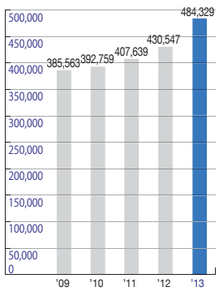
■Net Income (Million yen)



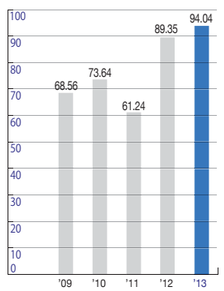
■Total Net Assets (Million yen)



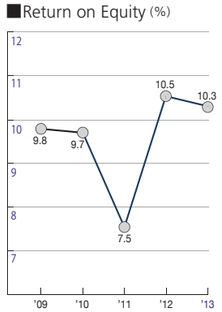
■Total Assets (Million yen)



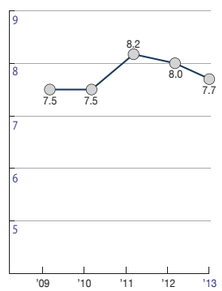
■Net Income – Basic (Yen)



■Return on Equity (%)



■Return on Assets (%)



Forward-looking Statements (Business Risk Factors, etc.)

The forward-looking statements in this Annual Report regarding estimates of business performance and predictions of future developments reflect Management's judgments based on currently available information, but also involve potential risks and uncertainties. Actual business performance could be significantly different from the projections made herein due to changes in various factors. The primary potential risk factors are summarized below.

- Significant changes in demand in East Asia, an important market for our major customers
- Progress in passing on to the customer increased costs resulting from higher LPG and kerosene contract prices and rising crude oil prices
- Increased transport expenses, including the costs of light oil, fuel oil, ocean freight, and air freight due to rising crude oil prices
- Increased raw materials costs for our frozen food business
- Decreased sales or reduced profits for our medical gases and medical services resulting from revision of national insurance drug and medical examination reimbursement prices
- Risks arising from a production problem, product defects, accidents, etc.
- Risks arising from the failure of merger and acquisition activities or other investments to perform as anticipated
- Risks arising from the failure to implement adequate measures such as business expansion and cost reductions in response to competition
- Increased cost of compliance as a result of revised or newly implemented environmental laws and regulations
- Risks due to natural disasters and other potential risks

The financial statement information contained in this Annual Report is based on the accounting term for the year ended March 31, 2013, and for previous terms as indicated. All other content is based on information available on August 31, 2013, when the editing of the Annual Report was completed.

CONTENTS

Increasing the combined strength of the Group through steady implementation of "NEXT-2020 Ver. 2" and aspiring towards high goals.

● Summary of FY2012

As a whole, a challenging environment remained for the global economy in this period (ended March 2013), with the prolonged European debt crisis, concern about fiscal problems in the U.S., and a slowdown in the economies of China and other emerging nations. The Japanese economy showed steady growth in public investments thanks to the exposure of demand for reconstruction in areas affected by the Great East Japan Earthquake. However, it had weakened overall until the end of the year, mainly due to the slowdown of the global economy, a decrease in production activities in China-related business, and a stagnation in capital investment by manufacturing and other businesses. After the turn of the year, such factors as the correction of the extreme yen appreciation and a rise in stock prices hinted at economic recovery, but recovery of the real economy is yet to be seen.

Under these harsh circumstances, Air Water achieved revenue growth again this year, with consolidated net sales of the Air Water Group for this period at 540.016 billion yen (109.6% year-on-year). In earnings, operating income was 27.897 billion yen (88.1% year-on-year), ordinary income was 35.156 billion yen (104.6% year-on-year), and net income was 18.366 billion yen (107.0% year-on-year), for an overall increase. Profit growth in ordinary income was achieved for the 10th consecutive period.

Looking at a breakdown by business area, our key Industrial Gas Business was hit hard by rising costs due to an increase in electricity prices, but this was offset by a steady increase in business results in the Medical Business and Energy Business and by the M&A effects of the establishment of the Agriculture and Food Products Business as a new business segment this period, for a major increase in sales and profits.

In the three years up to this period, Air Water implemented the "NEXT-2020 Ver. 1" medium-term business plan as the first step towards achieving our "Vision for a 1-trillion yen Company in FY2020." We surpassed the desired performance targets stated in "NEXT-2020 Ver. 1" by observing the "All-Weather Management System" positioned at the core of Air Water's management strategy and the "Order Rodentia Style of Business" based on a group of dynamic businesses that can respond quickly to environmental changes, by making the utmost use of the strong comprehensive power of the Group, and by actively carrying out internal reform measures for the future. I believe we have succeeded in linking these efforts to the development track for "NEXT-2020 Ver. 2" that will start in the upcoming period (ending March 2014).

● Business outlook for FY2013

In the next period, we expect the global economy to be affected by the continuing credit uncertainty crisis in Europe, but we anticipate gradual economic recovery in the United States, China and other countries. The domestic economy is also expected to recover on account of such factors as execution of the emergency economic stimulus package and a rally in exports. However, the future of overseas economies remains unclear, and harsh conditions are expected to continue in the environment surrounding domestic manufacturing businesses, mainly due to rising costs accompanying an electricity price hike.

Under such prospects, the Air Water Group will steadily implement "NEXT-2020 Ver. 2" while fully exercising its great comprehensive strength. It will do so by continuing to observe the "Order Rodentia Style of Business" that has raised the Group' s performance thus far, actively looking at M&A opportunities for expansion, and thoroughly pursuing synergistic effects in the diverse business groups. We project sales in the next period to be 600 billion yen in net sales (111.1% year-on-year), 34 billion yen in operating income (121.9% year-on-year), 36 billion yen in ordinary income (102.4% year-on-year), and 19 billion yen in net income (103.5% year-on-year).

● Further growth with a new medium-term business plan

The next period will see the start of the "NEXT-2020 Ver. 2" new medium-term business plan as the second step in Air Water's "Vision for a 1-trillion yen Company in FY2020." In the three years of "Ver. 1," we focused on finding the optimal balance between industry-related and non-industry-related businesses in the Group's business portfolio, and drove sales and profits to figures that exceeded the initial targets for the Group as a whole. We also achieved well-balanced growth while sustaining our financial strength, including keeping Return on Equity (ROE) at the 10% level.

Based on these results, in the "Ver. 2" new medium-term business plan, we will implement specific strategies in each of our business fields (see the Special Column section starting on page 6 for details) in order to more vigorously advance our "All-Weather Management System" and "Order Rodentia Style of Business" towards the realization of our "Vision for a 1-trillion yen Company in FY2020."

At the start of the new medium-term business plan, we advanced the Group's management philosophy: "We dedicate ourselves and our resources backed by the entrepreneurial spirit and pride in creation and development of businesses linking air, water, the earth, and humans." This basic policy will guide the growth and advancement of Air Water Inc. and the Air Water Group as a revitalized organization entering a new stage of development as a leader in the industrial gas sector. Going forward, we will strive to achieve even further growth through the combined strength of the group based on this new philosophy. It is my hope that as we strive towards these goals, we will be able to continue to count on your warm support and understanding.

Hiroshi Aoki
Chairman of the Board, Chief Executive Officer
September 2013

Review of FY2012

Industrial Gas Business

In the first half of the year, Blast Furnace On-site sales and the Industrial Gas Business in general began to recover from the effects of the Great East Japan Earthquake, and showed positive growth. In contrast, the second half was marked by deterioration in the exports environment caused a spreading slump in sales to major customers. Cylinder gas and other regional business was mostly strong, due to the expansion of VSU plants and increased sales capabilities of the nine Regional Business Companies in Japan. However, manufacturing costs increased drastically due to a rise in electricity prices, leading to severely harsh cost conditions.

Chemical Business

In the Coal Chemical Business, coke oven gas treatment volume recovered, and gas purification and crude benzene production was strong. Conditions for the Fine Chemical Business were harsh due to such factors as worsening market conditions, but the segment saw increased profitability thanks to the streamlining of functional chemicals. Market conditions for the Tar Distillation Business stabilized despite a slump in overseas demand, and the market for chemicals such as phthalic anhydride and naphthalene was strong.

Medical Business

As adoption of the Diagnostic Procedure Combination (DPC) expanded, the volume of medical oxygen sales rose through the acquisition of new client hospitals. Medical Equipment showed solid growth due to expanded sales of neonatal baby and infant ventilators and INOflow® nitric oxide pulmonary vasodilators as well as positive growth in Medical Services through an increase in the handled volume of SPD and a recovery in contract sterilization earnings. In the Hospital Facility Construction Business, operating room-related orders increased dramatically through showroom-based sales activities, especially for acute hospitals.

Energy Business

Conditions remained harsh for LP gas, a core product, as a result of high temperatures continuing until early winter and a continuing decline in residential demand from increasingly budget-minded consumers. Nevertheless, a sales volume comparable to that of the previous year was achieved thanks to an increase in new customers through the proposal of LP gas energy-saving devices and the promotion of switching to LP gas, especially to major commercial customers. Sales of household LP gas equipment were also strong as a result of the successful implementation of sales-strengthening measures.

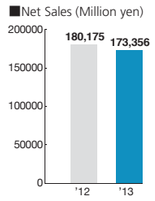
Agriculture and Food Products Business

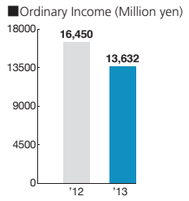
In the Ham, Delicatessen, and Frozen Food Product Business, a strong sales performance was seen in the frozen vegetable category, centering on uncured ham and broccoli that are core products. Coupled with an increase in sales through the acquisition of new customers for commercial sauces manufactured in-house, the overall performance for this segment was strong. Tomiichi, responsible for the Agriculture and Processed Foods Business, showed steady growth due to a focus of efforts on the manufacturing of frozen products from daikon radish and pumpkin, for which demand is increasing. Gold-Pak, which undertakes the Non-Alcoholic Beverage and Water Production Business, experienced increased orders for vegetable and fruit juices, leading to mostly positive growth.

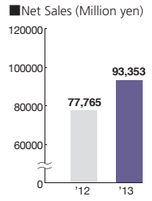
Other Businesses

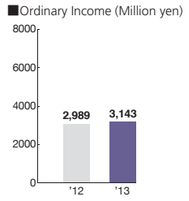
The Salt Business achieved stable supply levels through increased production at two plants in Setouchi and the securing of alternate salt sources. Steady growth was also seen for such products as potassium chloride for fertilizer and magnesium hydroxide for flue-gas desulfurization. In the Magnesia Business, sales of magnesia for electromagnetic steel sheets dropped due to stagnant demand from users. The Logistics Business saw an increase in construction-related freight handling volume and orders for specialty vehicles, but was hit with a cost increase due to excessive snowfall and fuel prices.

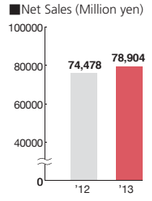
Sales trends by category (Year ended March 31)

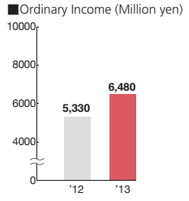


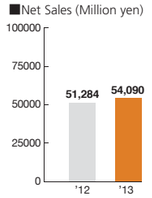


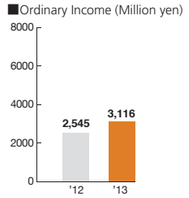


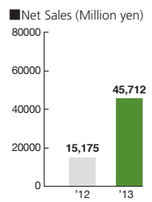


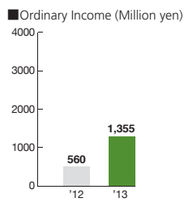


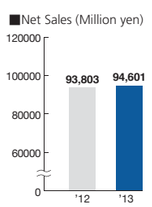


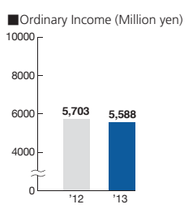








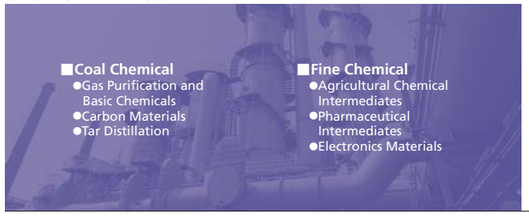




Business Segment

Industrial Gas Business

Chemical Business



Medical Business

Energy Business

Agriculture and Food Products Business

Other Businesses

Outlook for FY2013

Harsh conditions are expected to continue not only for Air Water but for all domestic manufacturing companies, due to cost-push inflation caused by rising electricity prices and the depreciation of the yen. Within this climate, Air Water will further strengthen its community-based industrial gas sales framework centered on its 11 VSU plants, including the Hofu Plant set to begin operation. In overseas business, it will further expand into Vietnam and other Asian markets.

Domestic chemical products are losing their international competitive edge due to the rise of emerging economies. Business structural reform is thus an urgent issue. In the Fine Chemical Business, Air Water will aim to create new high-grade and internationally competitive products through the combination of its distinct technologies and raw materials with a production system centered on its plant in China. In the Coal Chemical Business, Air Water will streamline production of its existing products and develop new products through collaboration with other Group businesses.

The business structure of this segment must be built and enhanced in order to keep up with the rapidly changing conditions surrounding medical institutions that include the implementation of state-of-the-art medical care and expansion of home care. Air Water will therefore pursue comprehensive solutions that encompass the five businesses of medical gas, medical equipment, medical services, home care, and medical materials in an effort to create distinctive new businesses for hospitals. In addition, Air Water will continue striving to expand and strengthen the Advanced Medical Facility field as a key field that is one of its strengths.

As society once again recognizes the importance of LP gas as a distributed energy that is powerful against disasters, Air Water will further implement its community-based marketing strategy and strive towards market expansion in the area from Hokkaido to north of the Kanto region. As a new growth strategy, it will also leap aggressively into the energy solutions field concerned with next-generation energy, including such areas as LNG tank trucks that are expected to show market expansion, LP gas-type mobile power source cars, and the power generator business.

With Shinshu and Hokkaido positioned as key bases, Air Water will continue to seek synergies through M&A and develop this segment as a new pillar for company growth. Gold-Pak, Saveur SS, and Tomiichi will remain at the core of this segment. Through the addition of Nichirosunpack as a beverage manufacturer, Air Water will develop an innovative business model whereby it pursues everything from farming to food product processing and marketing in an integrated manner as a Group.

In the Salt Manufacturing and Environment Business, Air Water will strive to provide a stable supply of salt and expand production of potassium chloride and READ-F. It will also launch new business in the water pipe and water treatment equipment field. In the Magnesia Business, Air Water will start operations at a new plant within the fiscal year and strive to stabilize the supply even more fully by building a multiple supply system that will strengthen its BCP. In the Logistics Business, it will strive to enhance the distribution network with robust food product logistics and strengthen partnerships through the logistics commissioning of Group businesses.

New medium-term business plan "NEXT-2020 Ver. 2" (FY2013 - FY2015)

Challenge towards "Growth" and "Reform"

Reaching net sales of 1-trillion yen for the Group in FY2020—to achieve this high goal, Air Water launched a new medium-term business plan in FY2013: "NEXT-2020 Ver. 2."

The basic concept for the new medium-term business plan is to take on the challenge towards "Growth" and "Reform." Based on the extensive results achieved in the past three years, Air Water will more vigorously advance its unique portfolio strategies, the "All-Weather Management System" and "Order Rodentia Style of Business," and steadily implement growth strategies in each of its business fields.

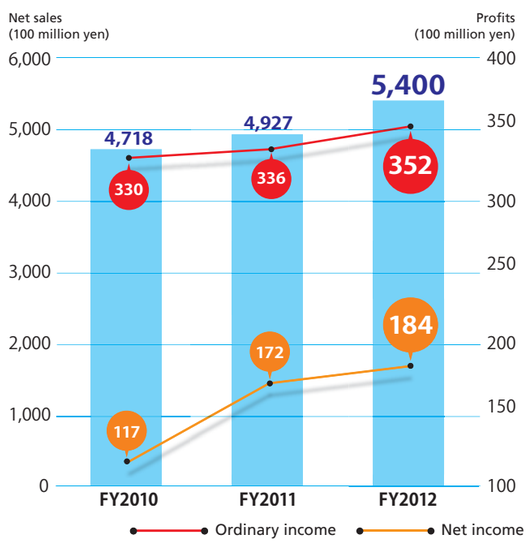
NEXT-2020 Ver. 1 Achievements

Steadily growing profits within a rapidly changing business climate

In the three years of the previous medium-term business plan, "NEXT-2020 Ver. 1" (FY2010-FY2012), the environment surrounding business operations endured dramatic changes, including the aftermath of the prolonged global financial crisis, the occurrence of the Great East Japan Earthquake and the ensuing energy shortage crisis, and the slowdown in domestic manufacturing due primarily to the appreciation of the yen.

Despite such a severe business environment, the Air Water Group saw significant improvements in its operating results over those three years, with a sales increase of 27%, ordinary income increase of 21% and net income increase of 32% for the period, successfully achieving growth that surpassed initial targets. This growth was also well balanced, as Air Water sustained its financial strength such as by keeping Return on Equity (ROE), a management indicator, at the 10% level.

■ **Changes in sales and profits during "NEXT-2020 Ver. 1"**



Business structure changes over the past three years

Expanding businesses involving "people" with Air water's unique portfolio strategies

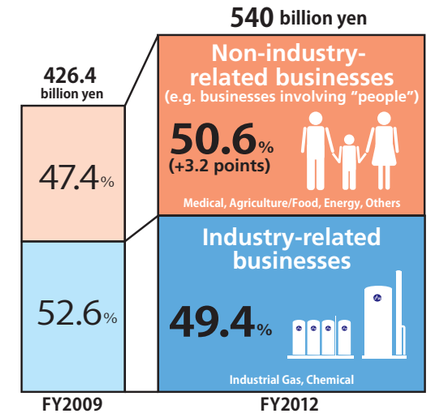
That the Air Water Group was able to surpass performance targets of "NEXT-2020 Ver. 1" is indicative of the great success of the All-Weather Management System for maintaining growth in any business environment and the Order Rodentia Style of Business that is a unique portfolio strategy of the Group.

This can be expressed succinctly in changes in the company-wide sales breakdown. In FY2009, the first year of "NEXT-2020 Ver. 1," industry-related businesses centered on the Industrial Gas Business and Chemical Business accounted for the majority of company sales. Three years later, in FY2012, sales for non-industry-related businesses (businesses involving "people"), such as medical, agricultural and food, increased so much that the ratios reversed, further strengthening the All-Weather Management System of the Air Water Group.

The Group has moved steadily forward in this manner to realize its "Vision for a 1-trillion yen Company in FY2020."

It will continue to maintain and strengthen this dynamism with an eye toward the accomplishment of its great goal.

■ **Changes in sales breakdown during "NEXT-2020 Ver. 1"**



Basic concept and objectives of "NEXT-2020 Ver. 2"

Clearing hurdles and making breakthroughs

"NEXT-2020 Ver. 2" is a three-year medium-term business plan that was launched in FY2013 as the second step in the "Vision for a 1-trillion yen Company in FY2020," following the results from "Ver. 1."

Regarding the current business environment, the domestic economy is showing signs of bottoming out due to a correction of the high yen and soaring share prices resulting from policy effects. When considering the next three years, however, a sense of uncertainty remains regarding the medium- to long-term business environment that surrounds the Air Water Group.

With this in mind, two major business challenges are apparent for the Group.

The first is to rebuild the Group's earning capacity in industry-related businesses that show little prospect for dramatic expansion. The second is to drive high growth in lifestyle-related businesses through aggressive new developments centered on M&A.

With an awareness of this environment and these challenges, the objectives on the right were developed for the new medium-term business plan "NEXT-2020 Ver. 2" with "Challenge towards 'Growth' and 'Reform'" as the basic concept.

■ **Basic concept and objectives of "NEXT-2020 Ver. 2"**

Challenge towards "Growth" and "Reform"

Vigorous advance of the "Order Rodentia Style of Business" and "All-Weather Management System"

Three objectives

Exert comprehensive strength through the pursuit of synergies

Driving power for growth and evolution

Expand and deepen relationships with customers through all-Air Water products.

Expand businesses involving "people"

Take on challenges in growth fields

Actively develop businesses involving people and lifestyles, such as the medical, welfare and nursing care, agricultural and water businesses.

Accelerate structural reform

Reconstruct foundation businesses

Realize a leaner and stronger organization through structural reform of the industrial and chemical businesses and strive to create new businesses.

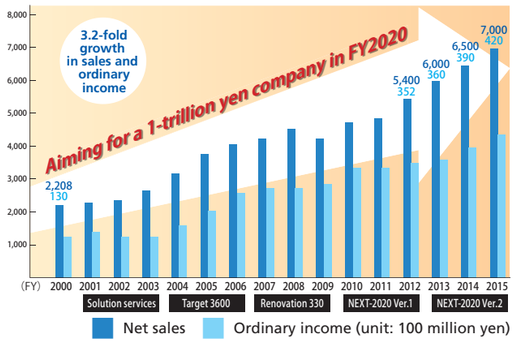
Numerical targets of “NEXT-2020 Ver. 2”

3.2-fold growth in 15 years, 1-trillion yen Company in FY2020

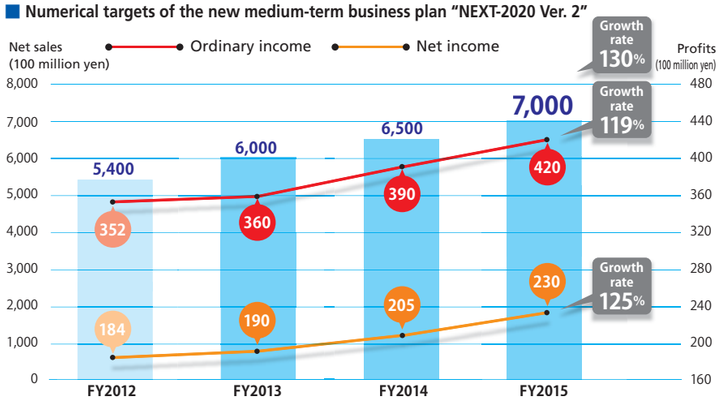
Air Water's numerical targets to be achieved in FY2015, the final year of “NEXT-2020 Ver. 2,” are 700 billion yen in sales and 42 billion yen in ordinary income. Seen from the year 2000 when Air Water came into existence, these figures indicate that the Company will achieve a roughly 3.2-fold growth in 15 years.

As management indicators, Air Water set targets for an ordinary income ratio of 6% or higher, ROE of 10% or higher, and shareholder's equity ratio of 40% in order to maintain or raise the current high level of soundness, profitability, and efficiency in its corporate management.

■ Performance over the years



■ Numerical targets of the new medium-term business plan “NEXT-2020 Ver. 2”



Management indicators

Recurring margin	6% or higher
ROE	10% or higher
Equity capital ratio	40%
Net D/E ratio	0.75-fold or less

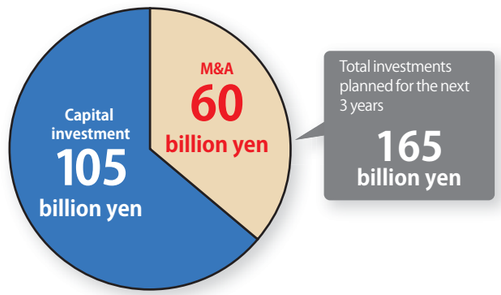
Towards further growth

Keys to growth are pursuit of M&A opportunities and synergies

Up to now, the main growth factors for the Air Water Group have been aggressive M&A and pursuit of Group synergies. In the past 13 years, the Air Water Group has concluded as many as 76 mergers and acquisitions. Of these, 49 are now consolidated companies with a combined net sales of 280 billion yen, accounting for 52% of the entire company's sales. Meanwhile, business profits at these companies have increased roughly 2.5 times from their pre-M&A levels. In other words, these companies have experienced significant growth following M&A by Air Water. The main factors contributing to their growth are the revitalization of operations following structural improvement at each company and the pursuit of synergies with Air Water's existing businesses.

In the next three years, Air Water will continue to uphold its policy of actively seeking out new M&A opportunities and pursuing further synergies. It will thus aim for an increase in sales and profits over and above that gained through the M&A.

■ Investment plan ratio



“NEXT-2020 Ver. 2” implementation measures

Reconsider the business group and clarify strengths

For “NEXT-2020 Ver. 2” implementation measures, Air Water's businesses were separated into three main groups.

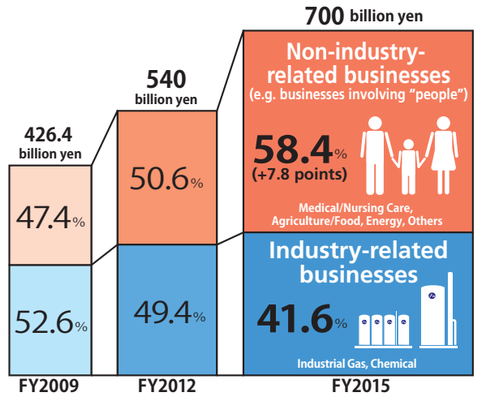
The first is a group of businesses that are considered growth drivers in “Ver. 2.” It comprises three business fields: the Medical and Nursing Care Business, the Agriculture and Food Products Business, and the Energy Business.

The second is a group of businesses that require structural reform and a strengthening of their business structure towards the next medium-term business plan, “Ver. 3.” This group consists of two business fields: the Industrial Gas Business and the Chemical Business.

The third comprises fields to develop over the next three years as growth drivers for the next medium-term business plan, “Ver. 3.” Those fields include overseas projects, the power generation business, and new technologies.

Basic strategies and concrete measures have been established for each business field based on these three groups. These implementation measures will be carried out over the next three years as Air Water attempts to achieve the targets set in “NEXT-2020 Ver. 2.” Air Water will further strengthen its “All-Weather Management System” that is impenetrable to environmental changes by expanding all its businesses by FY2015, the final year of the medium-term plan, and implementing structural reform of its business portfolio so that non-industry-related businesses (businesses involving “people”) account for about 60% of overall sales.

■ Changes to the sales structure with “NEXT-2020 Ver. 2”



■ Implementation measures based on the objectives

Medical and Nursing Care Business
Basic strategy
Become the No. 1 company in comprehensive hospital-related businesses in both quality and quantity.

Agriculture and Food Products Business
Basic strategy
Develop innovative business models and promote the business as a pillar for corporate growth.

Energy Business
Basic strategy
Develop new products and promote thoroughly community-based strategies.

Growth drivers in “Ver. 2”

Industrial Gas Business
Basic strategy
Accelerate structural reform, fully expand into Asia.

Chemical Business
Basic strategy
Push beyond the boundaries of existing businesses and create businesses that will become the core of new fields.

Structural reform and the strengthening of business structure towards “Ver. 3”

Overseas Projects
Basic strategy
Pursue diversified overseas expansion with Industrial Gas Business at the core.

Power Generation Business
Basic strategy
Promote the power generation business by leveraging all available business resources.

New Technologies
Basic strategy
Create new growth drivers through research and development that is directly linked to businesses.

Development of future growth drivers for “Ver. 3”

Air Water's Expanding Business Sphere

New Possibilities from "Air" and "Water"

Air Water has always proposed new value to society by building on the core of its founding Industrial Gas Business, and consistently venturing into new fields in order to actualize the unique strategies of its "All-Weather Management System" and "Order Rodentia Style of Business."

The dramatic growth of the Air Water Group is upheld by its one-of-a-kind technologies and the myriad of synergies generated through organic connections between the diverse businesses that each have their own distinctive strengths.

An unexplored business sphere with infinite possibilities remains spread out before the Group. Air Water will continue in its perpetual quest to take on challenges in diverse fields and develop new value so that it may better serve society as a corporate group.

Current Growth Drivers

Agriculture and Food Products Business

Ham & Delicatessen Products, Frozen Foods
Fruit & Vegetable Distribution and Processing
Vegetable & Fruit Juice Beverages
Agriculture, AW-Water

Logistics Business

Medical and Nursing Care Business

Hospital Facility
Medical Gas
Home Care
Medical Services
Medical Equipment

Energy Business

LP Gas and Kerosene
Natural Gas Pipeline Distribution
Energy Solution

FY2015
Net sales 700 billion yen

Next-generation Growth Drivers

Seawater Business

Power generation

Overseas

New technologies

Industrial Gas Business

Industrial Gas Business
Engineering Technology
Sales Network
Community Base
Logistics Infrastructure

Chemical Business

Coal Chemical
Fine Chemical

FY2020
Net sales
1 trillion yen

Industry-related businesses **41.6%**

Non-industry-related businesses **58.4%**

Industrial Gas Business

Responding to varied manufacturing and lifestyle needs as a comprehensive industrial gas supplier

Air Water supplies many different types of gases to society, including oxygen, nitrogen, argon, carbon dioxide, hydrogen, and helium. In addition to utilization in a myriad of manufacturing fields, such as steel, chemical, electronics, and glass, these industrial gases are indispensable to all spheres of society, from the medical to agriculture and food industries.

A prime feature of Air Water's Industrial Gas Business is the flexible supply capacity that allows a selection of the optimal method to suit the need, be it on-site supply or small-scale supply via gas cylinders. An integrated production and sales system rooted in the idea of "making and delivering our own gas to users" has been valued highly since the company's inception. In addition to gas production, Air Water amasses advanced gas-related technologies for plant engineering, transport, storage tanks, and other applications to meet the diverse needs of society.

＜Tank Trucks and Cylinders＞

Air Water has built a solid nationwide distribution network that ties its gas production facilities and filling stations to its Regional Business Companies. From the meticulous supply of single cylinders for small-scale demand to the stable supply of gas cylinder bundles, PLC (ultra-low temperature liquefied gas containers), and liquefied gas tank trucks for medium-sized demand, Air Water delivers gas in a manner that is optimally suited to quantity and usage needs.

Filling station

＜VSUs＞

The VSU high-efficiency, compact liquefied gas production plant is a unique Air Water business model based on the concept of "production in appropriate quantities near those areas where there is demand, and delivery by short-distance transportation," enabling supply for local demand through partnerships with dealers in each area. The VSU plants in 11 locations throughout Japan form an industrial gas supply network that is highly resistant to disasters, create a safe and stable supply system, and help cut CO_2 emissions.

Hirakata VSUA Center

＜Large-scale On-site＞

Large-scale gas production plants are constructed on-site at the production facilities of steel, chemical, semiconductor, paper and pulp, and other manufacturers that require a large, continuous supply of industrial gas. Gas from these plants is safely and efficiently supplied to users via pipes. The on-site plants located throughout Japan that are run directly by the Air Water Group, along with the VSU plants, are also used for producing liquefied gas for outside sale. State-of-the-art technologies are implemented to ensure high-efficiency gas production at all times.

Senboku Oxygen's V3

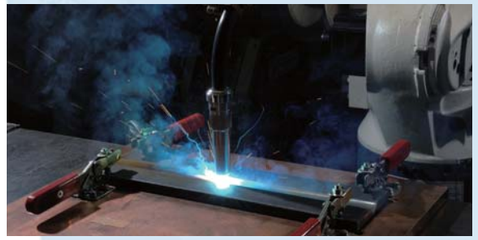
＜Small- to Medium-scale On-site＞

Small- to medium-scale gas generators supply on-site gas to users in electronics, glass, and other industries with medium-scale demand. Air Water offers a broad lineup of gas generators developed in-house to meet its customers' needs, including the V series that produces highly pure nitrogen, oxygen, and hydrogen, cryogenic air separation generators, and PSA generators that do not use cold energy or catalysts.

V1 high-purity nitrogen generator

＜Industrial Equipment＞

Air Water offers all types of industrial equipment, including those required for argon gas for welding shields. Through the sale of equipment and tools used at manufacturing sites, Air Water provides welding solution services that revolve around the ELNACKS® shielding gas for high-purity and high-quality steel plate welding that boasts the highest market share in Japan and the AW-Shield that is a shield gas for welding stainless steel and aluminum.



ELNACKS® gas for welding shields

＜Specialty Gases and Specialty Chemicals＞

Air Water procures specialty gases, highly pure chemicals, and organic metal materials used in processing for the semiconductor, liquid crystal panel, solar cell, LED and other cutting-edge fields from overseas manufacturers and provides them to users after rigorously checking them for quality. High-quality high-purity ammonia and hydrogen selenide are manufactured in Japan.

Specialty gas supply module

＜Electrical and Electronics Materials＞

Inoueki Co., Ltd. and Abe Denzai Co., Ltd. are trading companies that specialize in electrical and electronic materials. They procure products that resolve customers' problems from around the globe and add the required processing as requested by the customer before delivery. Printec Corporation manufactures and sells high performance semiconductor substrates and LED adhesives.

＜BELLPEARL＞

Air Water Bellpearl Inc. manufactures and sells a variety of products including BELLPEARL® functional resin, BELLFINE® electrode material for power storage devices, and ATEC electrode sheets. It has also developed BELLSWING®, a PSA-type nitrogen gas generator that uses BELLFINE® as its adsorbent, which it sells to domestic and overseas users.

Functional resin BELLPEARL®

Strengthening industrial gas supply to western Japan through the construction of carbon dioxide and VSU plants

Air Water has built two new production bases in Yamaguchi Prefecture in an aim to further enhance its domestic industrial gas supply network.

One is the Sanyo Onoda Plant that produces liquefied carbon dioxide and dry ice. Dry ice has been in very tight demand since the Great East Japan Earthquake. The Sanyo Onoda Plant enables an additional supply of 90,000 tons a year to maintain a stable supply of dry ice to western Japan and other areas.

The other plant is the Hofu VSU plant that is that 11th VSU in Japan. This new VSU strengthens the supply system for users in the Chugoku region who previously had gas transported over a long distance all the way from Kyushu. It also acts as a backup plant for the Kyushu region.

VSU in Hofu Plant

Chemical Business

Use of chemical products created with coal chemical technology in various aspects of society

Air Water's Chemical Business is based on the close relationship with the steel manufacturing industry that was built up by supplying industrial gas. This business is centered around the Coal Chemical Business in which high value-added chemical products are created from coke oven gas and coal tar supplied from steel works, and the Fine Chemical Business in which high-grade products are produced from tar distillation products and organic compounds using superior synthesizing technologies. These businesses generate a number of different chemical products that are then used in all aspects of society, from resins and rubbers to fertilizers, agrochemicals, pharmaceuticals, and electronic materials.

Air Water founded a fine chemical production company in China in 2012, and has been strengthening and enhancing its business framework to establish a high-grade and globally competitive production and supply system. Based on its accumulated wealth of knowledge and expertise in all types of separation and purification technologies and aromatic compound derivative synthesizing technologies, Air Water will strive to develop innovative products that meet the needs and requirements of each user.

Coal Chemical

＜Gas Purification and Basic Chemicals＞

Coke oven gas that is produced as a byproduct in the manufacturing of coke, a blast furnace fuel, at steel works is separated and refined in order to directly supply steel works with the purified gas (fuel gas) essential to blast furnace operation.

Furthermore, basic chemicals such as crude benzene and ammonium sulfate are also produced in the purification process. These products are useful to society as raw materials for a wide variety of industrial products, including resins, solvents, agricultural fertilizers, and synthetic fibers.

Gas purification plant in Wakayama Plant

＜Carbon Materials＞

Coal chemical technologies are applied to the development of high value-added carbon products that are then released to the market. Air Water is the only domestic manufacturer of thermally expandable graphite, TEG, one of its core products. TEG is used in such applications as seal material for vehicle engines and exhaust gas pumps and as a flame retardant for urethane sheets. In addition, Air Water's hydrocarbon resin, FR, is highly compatible with rubber and resin, and used as a binding agent for vehicle tire rubber.

TEG used as flame retardant

＜Tar Distillation＞

C-Chem Co., Ltd., a joint company with Nippon Steel & Sumikin Chemical, is a dedicated tar distillation company with one of the top production capacities in Japan. The company uses coal tar provided by Air Water as a raw material to manufacture tar-derived products such as needle coke for electric furnace electrodes, naphthalene, and phthalic anhydride that are supplied to the global market.

Needle coke that is the raw material in electric furnace electrodes

Fine Chemical

＜Agricultural Chemical Intermediates＞

As a top global manufacturer of quinolines, indoles, and other heterocyclic compounds, Air Water provides a multitude of compounds to meet the derivative development needs of agrochemical manufacturers around the world, not only in Japan but also in Asia, the Americas and Europe. These compounds are used as raw materials for the production of all sorts of agrochemical products, such as fruit germicides, plant growth-promoting agents, and herbicides.

Agricultural chemical intermediate

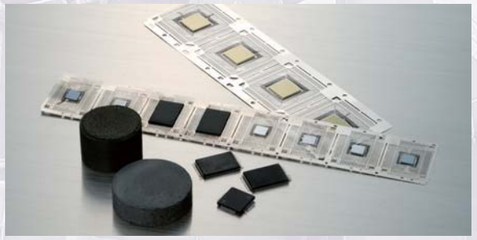
＜Pharmaceutical Intermediates＞

Air Water makes full use of its multipurpose synthesis plants (Air Water Kashima Plant, Sun Chemical Co., Ltd.) that feature advanced synthesizing technologies and meet GMP standards to produce a diverse array of pharmaceutical derivatives by commissioning, and meets the highly varied needs of major pharmaceutical manufacturers and other customers. Those raw pharmaceutical materials and pharmaceutical intermediates are turned into anticancer drugs, anti-allergic drugs, nutritional supplements, cough suppressants, eye drops, angiography contrast agents and many other pharmaceutical products that broadly serve the medical care field.

GMP plant in Kashima Plant

＜Electronics Materials＞

Liquid air oxidation, nitration, and other advanced polymide synthesizing technologies are utilized to manufacture functional polymer products at Air Water's Kashima Plant and its joint venture company in China (Air Water-Richap Chemical). These products are used in such applications as semiconductor sealant and photoresist technology. The SK Resin thermosetting phenolic resin that is a core Air Water product commands a domestic market share in excess of 30% as a semiconductor sealant in the high-end segment. It is available in a broad range of grades.



SK Resin, semiconductor sealing material

Expansion of Sun Chemical Co., Ltd. commissioned business in active pharmaceutical ingredients and intermediates

Sun Chemical Co., Ltd., responsible for part of the Air Water Group's Fine Chemical Business, has been expanding its commissioned manufacturing business by utilizing its advanced manufacturing technologies and excellent production facilities. Commissioned manufacturing is centered primarily on pharmaceutical-related business, such as the production of active pharmaceutical ingredients and intermediates, which makes up over 80% of the company's sales.

Sun Chemical has completed process validation for its two generic pharmaceuticals, an area that is anticipated to grow in demand amidst a strong movement towards lowering medical costs. Production of this pharmaceutical entered full swing in FY2012. Production of a third generic pharmaceutical is slated to begin in FY2013.

The Fine Chemical Business Division will continue utilizing Sun Chemical based on close cooperation with the Market Development Division in order to further expand the commissioned pharmaceutical business.

Reaction furnace at GMP plant

Medical Business

Integrated support to the front lines of healthcare with “total solutions” for everything from medical gas to facilities, equipment, and services

Providing a stable supply of medical oxygen and all other types of medical gas at all times—this is the absolute mission of Air Water's Medical Business. Air Water safely and reliably delivers medical gas to healthcare institutions through its own infrastructure to protect the lives of patients.

Air Water is greatly expanding the range of its Medical Business to cover everything from the manufacture, import and sale of medical instruments such as infant and child ventilators and incubators to the design and construction of operating rooms, ICUs, and other hospital facilities, medical services such as SPD (hospital supply, processing and distribution) and sterilization, and even services that are directly linked to patients, such as the home care and nursing care business.

It is through such diverse businesses that Air Water is able to offer its customers suitable solutions for the many challenges faced by those in the front lines of healthcare.

Air Water will continue enhancing the quality and volume of services in the Medical Business category that is an important pillar of its growth strategy.

Hospital Facilities

Based on its many years of experience in the high-pressure gas field and the latest technologies, Air Water constructs medical gas piping and other gas supply facilities as well as hospital facilities that require advanced technology, such as operating rooms, ICUs (intensive care units), CCUs (coronary care units), and NICUs (neonatal intensive care units), in addition to providing meticulous after-sales services.

Air Water Safety Service Inc., Miwa Electric Medical Co., Ltd., and Seiken Medical Co., Ltd. collaborate together and combine each of their strengths to provide one-stop solutions covering everything from planning to design, manufacturing, construction, and maintenance for medical care equipment construction work and advanced medical care institutions.

Advanced medical facility operating room

Medical Gas

As the top supplier of medical gas, Air Water supplies a variety of medical gases, such as medical oxygen that is a core product, nitrous oxide (laughing gas) used as an anesthetic, helium for MR imaging, and sterilization gas used in medical instrument sterilization, to medical institutions across Japan. For medical oxygen that is required to be in steady supply, Air Water has established a thoroughly reliable stable supply system comprising large-scale on-site plants, VSUs and other manufacturing and distribution hubs and a transportation network that stretches across the entire country.

It has also built a remote monitoring system based on in-house development that enables 24 hours a day, 365 days a year assessment of the state of the medical gas supply and facilities in real time at a monitoring center.

Medical gas CE

Home Care

In 1982, Air Water became the first to import medical use oxygen concentrators and launch a Home Care Business in Japan. Since then, it has expanded its range in this field to include in-house developed and manufactured medical use oxygen concentrators, home care artificial ventilators, devices for treating sleep apnea syndrome, and even mechanical in-exsufflators. Air Water will continue to enhance and expand its Home Care Business including the development and production of equipment and the provision of assistance and detailed support to home care patients.

“Koharu” and “Ibuki” oxygen concentrators

Medical Services

Through the SPD service, which involves accepting contracted responsibility for the logistics management of all pharmaceuticals and medical instruments within a hospital, the sterilization service, which involves the sterilization of medical equipment, and other services, Air Water helps create an environment where hospital staff can focus on providing healthcare service. It offers flexible sterilization services with the option of having specialized staff conduct high-quality sterilization at hospitals and the use of contract sterilization centers located across the country. Regional medical care services are also available that include the sale and rental of home care and nursing care products.

Kyushu Sterilization Center

Medical Equipment

In the Medical Equipment field, Air Water has expanded its range to include hyperbaric oxygen chambers, in which it has a domestic market share in excess of 50%, and other ventilator-related equipment that is closely connected to medical gas as well as cardiovascular, dialysis, nursing care, dental, and other medical instruments for which it offers distribution and maintenance services. In particular, it boasts strengths in medical equipment related to infant/child/perinatal care. In the neonatal field, it offers inhalation therapy based on INOflow® nitric oxide pulmonary vasodilators and INOvent® as a device for administering the gas. Air Water also carefully selects outstanding medical instruments from around the world to import to the Japanese market.

As one of its nursing care instruments, it sells the “Viami®” series of shower equipment for nursing care use that enables comfortable showering for both the care receiver and the caregiver. Air Water also conducts a number of other wide-ranging businesses, such as the manufacturing of metal and resin materials for use in dentistry and their fabricating equipment as well as hypodermic needles.

Sechrist Industries hyperbaric oxygen chamber

Stronger ability to provide “total solutions” to hospitals through aggressive M&A

Air Water considers the Medical Business a pillar for new company growth, and aims to strengthen its ability to provide “total solutions” to hospitals through aggressive M&A.

It has increased its comprehensive power in the domiciliary medical care business by adding the “Koharu” and “Ibuki” oxygen concentrators to its product lineup and acquiring the top domestic share in the home care infusion pump business (intravenous nutrient administration systems for home care patients).

In the hospital-related business, Air Water has acquired domestic distribution rights for perinatal equipment and obstetric care units (devices to monitor fetal heart rate, fetal movement, and the strength of contractions), and added major SPD service specialist Healthcare-Tech Corporation to the Group.

Portable HPN pump, Cafty Pump S

Energy Business

Developing community-based Lifestyle Solution Business centered on Air Water's LP gas business

Air Water's Energy Business started in 1955 in Hokkaido with sales of LP gas, and this business has grown steadily ever since. The LP gas field that is at the core of Energy Business utilizes Air Water's solid brand strength cultivated over many years and numerous distribution and marketing hubs scattered throughout Hokkaido, eastern Japan, and central Japan to provide a wide variety of services that are closely linked to local industries and the local people's lives.

Also in the field of LNG (liquid natural gas) that is garnering increasing interest as a clean energy with a smaller environmental load than petroleum and coal, Air Water is pursuing the Engineering Business that includes providing containers for transportation using cryogenic technology. It is further actively exploring new concepts with its distinctive technologies, such as distributed energy systems, mobile power source cars with LP gas generators, biogas systems, and snow and ice cryogenic energy systems that efficiently utilize the cold energy of snow, and show great promise for energy conservation and disaster control.

Energy Supply

＜LP Gas and Kerosene＞

Air Water delivers fuel energy that is indispensable for local living and industry, including everything from household use to commercial and industrial use, use in vehicles, and use in community gas utility businesses, through the Hello Gas brand that is available widely across Hokkaido and in areas in eastern and central Japan. For its LP Gas Business, Air Water has established an integrated supply and management system for delivering from secondary facilities (large-sized LP gas storage tanks) to users. Air Water is also focusing on providing customers with optimal energy mix solutions that combine LP gas with other forms of energy. For corporate customers, it offers LP gas-based gas co-generation and gas heat pump systems, and for regular homes it offers the hybrid hot water supply and heating system VIVIDO that combines an electric heat pump with a high-efficiency gas hot water heater.

As part of its comfortable LP gas life solutions, Air Water offers community-based lifestyle services such as the sale and installation of LP gas-related equipment, residential renovation solutions, and nursing care equipment.

LP gas

LP gas supply equipment for use in disasters

＜Natural Gas Pipeline Distribution＞

Natural gas from the Yufutsu gas field in Tomakomai, Hokkaido, which boasts some of the largest reserves in Japan, is pumped down Air Water's own gas pipeline to the Natural Gas Distribution Center in the Chitose Rinku Industrial Complex to provide a stable supply to companies in the industrial complex.


Chitose Pipeline Distribution Center

Energy Solutions

＜LNG Transport and Storage Tanks＞

Air Water is a domestic pioneer in LNG transport and storage tank technology. In the field of LNG transport equipment, it has gained a commanding market share in excess of 50% over the past few years. Air Water offers a wide range of LNG transportation containers that it has developed to meet the transportation needs of users, including monocoque tank trucks capable of transporting large quantities of LNG that are specialized for high-volume inland transport, inland and marine transportation tank containers, and inland and rail transportation tank containers. Air Water also utilizes the cryogenic technology and expertise it has cultivated in the Industrial Gas Business for its LNG storage tanks to provide advanced engineering services for the actualization of optimized LNG satellite hubs (storage and vaporization delivery facilities) that match user needs from the selection of storage tanks to facility layout.

15.7-ton LNG tank truck with the largest LNG shipping capacity in Japan

＜LP Gas-type Mobile Power Source Cars＞

The mobile power source car that runs on LP gas was completed in 2012 as the first of its kind in Japan. Taking advantage of the maximum power generating capacity of 100 kW, equivalent to that used by about 40 households, Air Water has distributed them to LP gas filling stations and its other hubs as part of its business continuity plan in the event of a disaster. Air Water is also expanding sales of the mobile power source car to regular companies and municipalities as an emergency power supply.


Comprehensive disaster drill using mobile power source cars

＜Biogas Systems＞

As a pioneer in this field, Air Water has amassed vast experience and expertise in biogas systems that generate power using biological materials such as livestock excreta and raw waste. It offers low-cost power generating systems that use high-quality biomass produced through an in-house manufactured gas purification system.

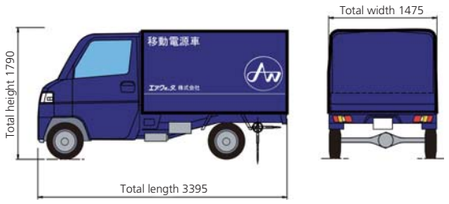
＜Snow and Ice Cryogenic Energy Systems＞

Air Water has begun trial operations of a chilling system that focuses on cold energy from snow, a resource that was largely ignored until now. It is striving towards the development of new businesses, such as storage units for chilled food that maintain the taste and freshness of vegetables and rice without expending a large amount of energy.

Storage unit utilizing snow and ice cryogenic energy (ice room)

Development of a compact light automobile-sized LP gas-type mobile power source car with excellent mobility

In addition to the trailer-sized LP gas-type mobile power source car that is both eco-friendly and quiet, a compact mobile power source car joined the lineup in 2013. It is similar in size to a light automobile and has excellent mobility. With a maximum output of 9.8 kW, the electric lamp and engine can be used simultaneously. The car does not require a specially certified driver for power-generating operation and can be used by anyone with a regular driver's license. Supplying power involves simply connecting to a small LP gas container, making it well-suited for use as an emergency vehicle.



Compact mobile power source car

Agriculture and Food Products Business

Aiming for a sixth business segment with a groundbreaking food value chain covering everything from crop production and distribution to food processing

Air Water' s "food" business began in the 1980s with the manufacturing of farm and marine product-based frozen foods that effectively utilize the cold energy of liquid nitrogen. Since then, Air Water has expanded its business in this category to ham, delicatessen products, and other chilled food products as well as originally developed sauces and sweets. In 2009, it established the Air Water Farm Agricultural Production Corporation and launched full-scale into the agriculture field with the production of high-quality vegetables at solar-powered vegetable plants.

Air Water continued to actively pursue M&A and add new fields to its repertoire including the distribution and processing of fruit and vegetables and the manufacturing and selling of non-alcoholic beverages. In 2012, Air Water launched the Agriculture and Food Products Business as a new business segment. Going forward, Air Water will seek synergies between the segment' s varied businesses and its existing businesses to create a revolutionary food business aimed at the establishment of a sixth industry that encompasses the first three. It will develop this category into a new growth pillar.

Ham, Delicatessen and Frozen Foods

Saveur SS Inc. offers three brands: Saveur commercial frozen food ingredients that have received great acclaim from hotels and upscale restaurants in Japan, Syunsetsu ham and delicatessen products for the general consumer market, and Sagami Ham, which has strong brand prestige in Kanagawa Prefecture and the surrounding southern Kanto region. In addition to its uncured ham that boasts the top share in the domestic market, it offers a broad range of high-quality frozen foods such as broccoli, asparagus, and scallops that retain their taste and freshness through cryogenic technology. The company is also working actively to take on new fields such as cooking sauces and Hokkaido sweets.

Saveur products (commercial use)

Vegetable and Fruit Juice

Gold-Pak fully utilizes agricultural product processing technology that brings out the wonderful flavors of raw ingredients to carry out full-scale integrated manufacturing of a number of beverages, including fruit and vegetable juices made with domestically grown fruit and vegetables from Shinshu and other areas and fine quality natural spring water. The company offers the commissioned manufacturing business that matches beverage manufacturers' unique specifications and the manufacturer business in which it produces brand products developed in-house or under collaboration.

In 2013, Nichirosunpack, a company that manufactures and sells various fruit juices and other non-alcoholic beverages in Hokkaido and Aomori prefectures, was added to the Air Water Group, expanding its beverage business even more. Going forward, Air water will seek out synergies with Gold-Pak that is involved in raw material procurement, product development, and production and sales, as well as collaborations with other Group businesses.

Gold-Pak products


Gold-Pak Azumino Plant

Fruit/Vegetable Distribution and Processing

Tomiichi Co., Ltd. has signed cultivation contracts with over 250 farmers in Hokkaido. The company offers nearly 20 different types of seasonal fruit and vegetables, including potatoes, pumpkins, and daikon radishes, that have been nurtured under the natural bounty of Hokkaido, as well as frozen vegetables and other processed foods to major food product manufacturers and other customers around the country. The company is drawing on its synergy with another Hokkaido-based company, Hayashiya, that is strong in the frozen vegetable field for its pumpkin, sweet corn and other products, and working to build a powerful supply chain. The original technologies and expertise and wide-ranging distribution network of Tomiichi that carries out all steps from raw material procurement to processing, freezing, and inspection all on its own greatly contribute to the creation of a new value chain in the Agriculture and Food Products Business category.


Tomiichi

Agriculture

Air Water Farm Agricultural Production Corporation operates two farms: the Chitose Farm, which produces fresh tomatoes and leafy vegetables in one of Japan's largest greenhouses, and the Azumino Farm, a base for tomato production in Nagano prefecture. These farms automatically regulate greenhouse temperature, sunlight, irrigation and other environmental factors via a compound environmental control system to create an environment that suits the cultivation of vegetables, allowing for a stable year-round supply of safe, high-quality vegetables. In addition, Air Water maximally exploits its merits as an industrial gas manufacturer, for example by supplying carbon dioxide gas through the Air Water Group for vegetable cultivation and controlling the CO_2 concentration in the greenhouse to create the optimal state for growing vegetables.


Azumino Farm greenhouse cultivation

AW-Water (home delivered drinking water)

AW-Water manufactures and sells mineral water that is water purified by reverse osmosis (RO) membrane filtration or clear distilled water obtained in the salt purification process added with the company's own marine-derived minerals, and spring water that is high quality groundwater from the Northern Alps. These products are distributed by delivery service to homes and offices along with a water-cooler developed in-house.


AW-Water Shinano-omachi Plant

Launch of AW-Water Shinano-omachi Plant to produce "North Alps Spring Water"

In Air Water's water distribution business that was launched in 2004, the AW-Water Shinano-omachi Plant that is the fourth domestic production base began operation in April 2013. By securing a water resource that offers a stable supply, Air Water can now deliver safe and reliable drinking water to an even more widespread area. The diversity of water resources that covers purified water, seawater, and natural spring water is a major advantage of AW-Water.


AW-Water Shinano-omachi Plant and "Air & Water Circulation" monument

Other Businesses

A multitude of distinctive technologies, products, and services continues to drive the growth of the Air Water Group

The foundation for Air Water's "All-Weather Management System" that is unaffected by fluctuations in the business environment is the "Order Rodentia Style of Business"—a portfolio strategy centered on a diverse group of small-scale but highly profitable businesses. The development of a variety of different businesses in the Other Business segment can be considered the essence of Air Water's business model.

From the Seawater Business, which supplies customers around the world with high-quality salt products and magnesia made from seawater, a resource with unlimited potential, to the Logistics Business, which provides high value-added services based on the equable low-temperature transportation technology developed through Air Water's Industrial Gas Business, each Group company with its unique technical capabilities and powerful products and services supports the continuous growth of the entire Group. In addition, exploiting the synergies between these businesses and Air Water's existing business or other Group companies enables the creation of even more ingenious businesses.

Seawater

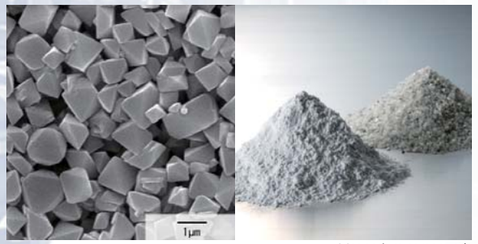
＜Salt＞

Nihonkaisui, Co., Ltd., a comprehensive manufacturer of salt that commands the leading market share in Japan, develops a variety of salt products, from table salt and food processing salt manufactured at the Ako and Sanuki plants to snow melting salt and boiler salt. It also makes active use of seawater resources and technologies to offer environmental products, such as the READ-F adsorbent for water and soil treatment and magnesium hydroxide. It is working to expand its business range to cover fields such as potassium chloride and other agricultural business, the electric power business, and the sewer pipe reclamation business.

General household salts

＜Magnesia＞

Tateho Chemical Industries Co., Ltd., an international magnesia brand, uses one-of-a-kind technology to produce high-function and high value-added magnesia compounds and ceramic products that have seawater-derived bittern and mineral magnesium as their primary ingredients and supplies these products to a wide range of industries. In particular, it distributes magnesia for high-grade electromagnetic steel sheets that are indispensable for the electricity infrastructure.


Magnesium compounds

Logistics

Air Water Specialized Transportation Inc. utilizes the equable low-temperature transport technology developed in Air Water's Industrial Gas Business to offer "food product logistics" that maintains freshness through meticulous temperature regulation and "medical logistics" involving the transport of blood (blood plasma) collected at blood centers around the country. In the General Cargo field, it offers a plethora of services to meet customer needs, from container transport to transportation of small- and medium-sized cargo lots through shared distribution channels and 3PL. It also designs and manufactures specialty vehicles that are optimized for each individual purpose.


Container transport method

Aerosol

Air Water Sol Inc. has the advantages of a production system based on three highly specialized plants in Japan and a research and development capacity that covers numerous fields. It supplies a diverse range of aerosol products via OEM, including everything from coating materials and automotive parts to cosmetics, quasi drugs, and household commodities. It is also working to strengthen the development of products such as UV protection sprays and disinfectant and washing solutions under its own brand, and to reform its business structure, for example by entering overseas markets and adding a liquid filling company to the Group.

Air Water Sol brand Aerosol products

NV (metal surface treatment)

Air Water NV Inc. uses its own unique metal surface treatment technology to provide solutions such as NV nitriding, which provides high-quality surface treatment for steel materials, and Pionite, which increases the hardness of stainless steel without compromising corrosion resistance. It is developing and expanding its business not only in Japan but also in regions of Southeast Asia.


NV processing of automotive parts

O-rings

Air Water Mach Inc. manufactures and sells all types of seals, such as JIS standard rubber O-rings and rubber products for industrial use. It offers a lineup of its own finished products for varied industrial fields, including ultrahigh-performance rubber O-rings for semiconductors and LCD manufacturing systems.


Rubber O-rings

ECOROCA® (artificial recycled wood)

Air Water manufactures and sells ECOROCA®, a new compound, recycled material made from used wood and plastic. This eco-friendly construction material with a low environment load, which provides superior durability and safety together with the natural feel of wood, is being used more and more in public facilities and other places.


ECOROCA®

Agricultural Machines and Tools

Nichinoki Seiko Co., Ltd. and Hiroshi Industry Co., Ltd. manufacture and sell all types of agricultural machines and tools. Each company offers its own distinctive products and services, and makes maximum use of the business network to strengthen and expand synergies with the Air Water Group.


Beet harvesters

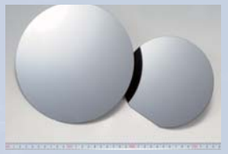
Nursing Care

Based on the concept of "leading a purposeful, healthy and independent life," Air Water has begun operating pioneering nursing care facilities in cooperation with lifestyle rehabilitation centers and regional medical institutions. It is also working to establish a new healthy welfare model centered on "healthcare, diet, and living" that combines various services offered by the Air Water Group.


Lifestyle Assist Center Matsumoto

SiC

Air Water has developed its own SiC substrate for such products as power semiconductors and super luminosity LEDs, and supplies the substrates to domestic and international customers. Air Water is the first in the world to successfully establish a technology for large diameter substrates of up to 8 inches and mass-produce the substrates as the most suitable for the growth of GaN (gallium nitride).


SiC substrates

Establishment of a new nursing care welfare facility that specializes in health advancement and long-term care prevention

Air Water has opened the Lifestyle Assist Center Matsumoto in Nagano prefecture. This Center is a complex-type nursing care welfare facility that specializes in health advancement and long-term care prevention.

Lifestyle Assist Center Matsumoto is an entirely new type of nursing care welfare facility that offers not only day services and residential homes with special services for older people, but also a fitness space that specializes in health management, including exercise rooms for preventing the need for long-term care.

In the future, Air Water will combine a number of the Group's varied management resources, such as its home oxygen therapy, LP gas, food products, water, and ECOROCA®, and aim for a nationwide spread of the Matsumoto model that offers comprehensive services related to "healthcare, diet, and living."


Lifestyle Assist Center Matsumoto

A "technology-driven company" to support the Group's future

Research & Development

Air Water pursues wide-ranging R&D, including everything from the development of new technologies and products as supporters of on-site operations to groundbreaking innovations that will lead the next generation.

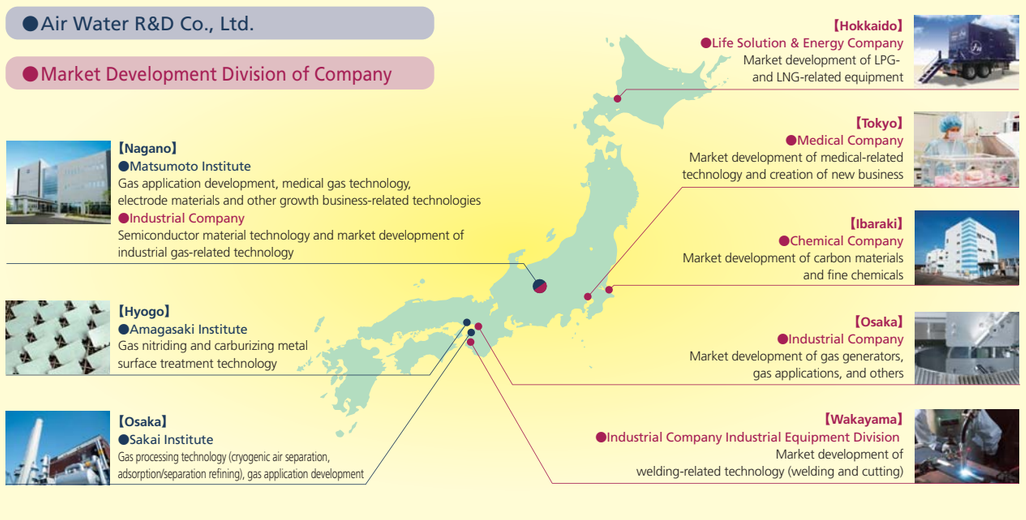
Air Water's R&D is delegated to the Market Development Divisions at each Company that carry out business-based technological development and to Air Water R&D Co., Ltd. that works to develop innovative technologies that will drive the growth of the Group in coming generations.

Air Water R&D Co., Ltd. supports technological development throughout the entire Group and sets "strategic technological development themes" based on novel far-seeing technology. It drives new growth through the further advancement of high value-added technologies.

Meanwhile, the Market Development Divisions are responsible for setting "business-based technology development themes" based on a greater application of existing technologies and new market exploration. Through these entities, Air Water responds with agility to market needs and develops differentiated technologies that are vital to its global strategy.

Research and development fields

- Gas processing technology
- Gas collection and recycling technology
- Gas applied technology
- Welding technology
- Electronics materials technology
- Plasma surface treatment technology
- Fine chemicals and new materials technology
- Functional resin materials technology and carbon materials technology
- Medical-related technology
- Metal surface treatment technology
- Collagen applied technology
- Agriculture- and food-related technology



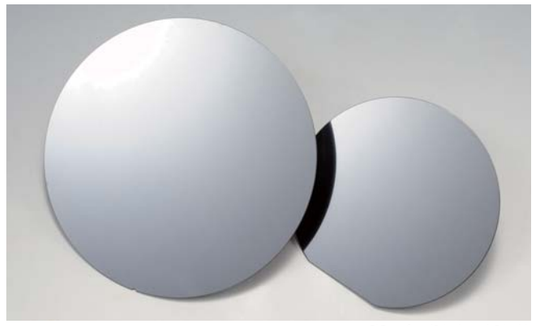
Major R&D Results for FY2012

World's first: Large diameter 8 inch SiC on Si wafers

Air Water developed a mass production technology for the world's first high-quality large diameter 8 inch SiC on Si (silicon carbide on silicon) wafers.

As a part of its gas application technologies, the Air Water Group has been developing vacuum chemical epitaxy (VCE) manufacturing systems for growing crystalline thin films for semiconductors since the 1980s. Air Water combined its film formation technologies in this field with the Group's unique surface treatment technologies for glass and plastic (atmospheric pressure plasma technology) and for metal (NV nitriding technology) to successfully achieve the film formation and mass production of high-quality SiC on Si wafers that was previously believed to be difficult.

SiC is considered one of the best base substrate materials for growing films of GaN (gallium nitride), a next-generation high-tech semiconductor material, and the SiC on Si wafers show great prospects as a low-cost large diameter base substrate for GaN power semiconductor applications. This development technology was transferred to the Air Water SIC Division that is responsible for the manufacturing and sales of SiC on Si wafers and has already begun production and marketing operations. The Azumino Plant production base currently has a monthly production capacity of 2,000 6-8 inch SiC on Si wafers.

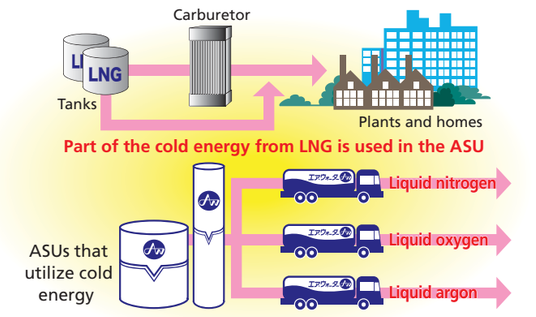


SiC wafers (8 inch and 6 inch)

Azumino Plant, Air Water Inc. (Azumino City, Nagano)

LNG cold energy ASU for small-sized facilities

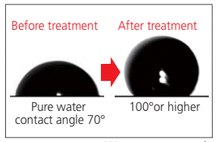
Air Water developed a low power consumption rate air separation unit (ASU) that efficiently uses LNG cold energy. It is targeted for LNG imported from South East Asia that has been increasing in volume. Rather than ordinary large-sized ASUs for LNG cold energy utilization, Air Water newly developed a process that is compatible with small-scale liquefied gas production ASUs. This technology can be used to produce liquefied gas at less than one-third the energy usually required.



Atmospheric Pressure Plasma continuous hydrophobic treatment system

Air Water expanded the application of its atmospheric pressure plasma surface hydrophobic treatment technology to organic EL devices and display diffuser panels, and completed the development of a continuous treatment system. This technology gives acrylic sheets and glass surfaces super-hydrophobic properties with a water contact angle of over 100 degrees, enabling sharp, finely detailed printing of fine patterns. Applications of this system will be extended to electronics fields that are becoming more and more high-performance, including organic EL displays and solar cells that have a growing market.

Atmospheric Pressure Plasma continuous hydrophobic treatment system

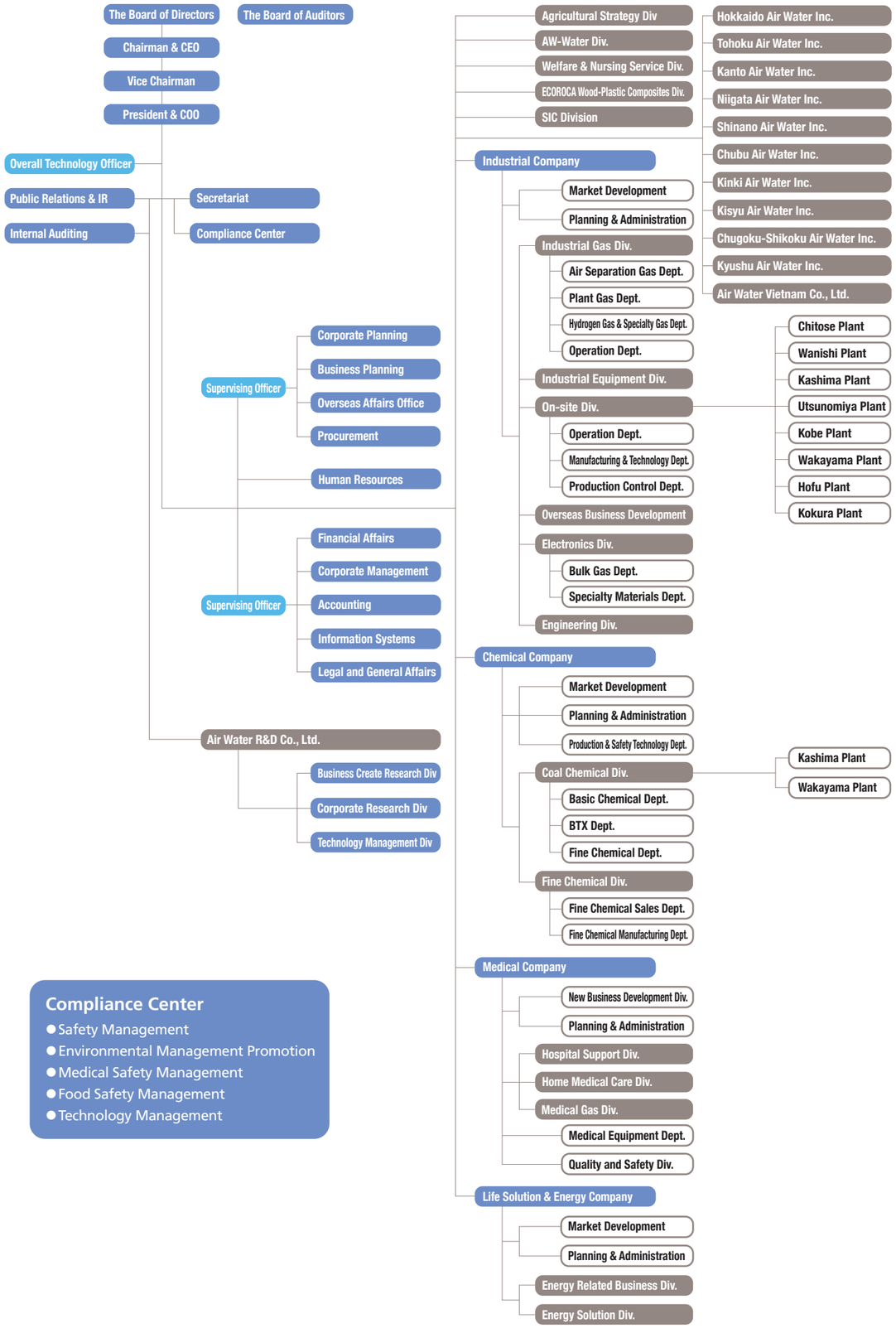


Water contact angle on the surface of acrylic substrate

Pulse tube refrigerator for next-generation transportation facilities

Air Water developed a pulse tube refrigerator for superconducting magnet cooling applications. This refrigerator is targeted for use in next-generation models of magnetically levitated transportation systems (linear motor trains) that are expected to begin commercial operation in 2027. A parallel cooling system in which two pulse tube refrigerators are driven by one helium compressor was successfully used to drastically increase the efficiency (COP). The simple structure pulse tube refrigerator has great potential for use in the future as it can simplify maintenance and increase reliability.

Pulse tube refrigerator



Compliance Center

- Safety Management
- Environmental Management Promotion
- Medical Safety Management
- Food Safety Management
- Technology Management

HOXAN Corporation

Sep. 1929 Hokkai Sanso Co., Ltd. is established in Sapporo.

Dec. 1955 Sales of LPG begin.

Sep. 1963
Sales and production of a bath room unit named “Bath-All” begin.

Aug. 1966 Company name changed to HOXAN Corporation.

Sep. 1979 The Company's stock is listed on the First Section of the Tokyo Stock Exchange.

Mar. 1981
Manufacture and sales of frozen food begin.

Daido Sanso K.K.

Mar. 1933 Daido Sanso K.K. is established in Osaka.

Sep. 1961 The Company's stock is listed on the First Section of the Tokyo Stock Exchange.

Apr. 1970
Senboku Oxygen Co., Ltd. begins operation. The Kansai district's first on-site operation with the capability of generating gas and liquid gas begins.

Oct. 1983 Capital alliance with U.S.-based Air Products and Chemicals, Inc. is formed.

Aug. 1984
High-purity nitrogen generator “V1” is developed. Mini on-site operation for semiconductor equipment manufacture begins.

Dec. 1992 Cryo-Air Co., Ltd., which has an energy-saving cryogenic air separation system utilizing LNG's cold energy, begins operation.

Kyodo Oxygen Co., Ltd.

Feb. 1962 Kyodo Oxygen Co., Ltd. is established in Wakayama.

Sep. 1979
Manufacture and sales of ELNACKS® welding shield gas begin.

Jan. 1996 The Company's stock is listed on the Second Section of the Osaka Securities Exchange.

Apr. 1993 Daido Hoxan Inc. is established.

May 1996 Business alliance between Daido Hoxan and Kyodo Oxygen is formed.

Jan. 1997 Daido Air Products Electronics Inc. is established.

Apr. 2000 Air Water Inc. is established.

Oct. 2002
Sumikin Air Water Chemical Inc. is established.
Chemical Business is established around coal chemical.

Apr. 2004
Development of compact liquefied gas plant (VSU). No.1 Unit begins operation in Niigata. (upgrades and expands stable local supply system)

Sep. 2007 Nihonkaisui Co., Ltd. is made a subsidiary of the Air Water Group.
Seawater Business is established; including Tateho Chemical Industries Co., Ltd..

Oct. 2007
Research and Development Institute is established in Matsumoto City (Nagano). Consolidates the cutting-edge technologies and intellectual properties of the Air Water Group.

Mar. 2010 Mid-term Business Plan “NEXT-2020 Ver.1” is established.
(Seeks to become a 1-trillion yen company in net sales in FY2020 and puts in place a “Foundation for Further Growth”.)

Oct. 2012 Agriculture and Food Products Business is established through the addition of Gold-Pak and Tomiichi to the Air Water Group.

May 2013 New medium-term business plan “NEXT-2020 Ver. 2” is established.
(Net sales target for FY2015: 700 billion yen)

Corporate Outline

(As of March 31, 2013)

Company Name	AIR WATER INC.
Head Office	12-8, Minami-Semba 2-chome, Chuo-ku, Osaka, 542-0081, Japan
	Tel (+81) 6-6252-5411 Fax (+81) 6-6252-3965
(Registered Address of Head Office)	2, Kita-Sanjo-Nishi 1-chome, Chuo-ku, Sapporo, 060-0003, Japan
(Tokyo Office)	18-19, Toranomon 3-chome, Minato-ku, Tokyo, 105-0001, Japan
Established	September 24, 1929
Paid-in Capital	¥32,263 Million
Number of Employees	8,937 (Consolidated)
URL	http://www.awi.co.jp/english/

Board of Directors

(As of June 27, 2013)

Chairman of the Board and Chief Executive Officer	Hiroshi Aoki
Vice Chairman	Masahiro Toyoda
President and Chief Operating Officer	Yasuo Imai
Corporate Executive Vice President	Akira Yoshino
Corporate Senior Managing Directors	Takashi Izumida / Toshihiko Akatsu / Akira Fujita / Kikuo Toyoda / Junichi Nakagawa
Managing Directors	Yuu Karato / Yukio Matsubara
Corporate Directors	Noriyasu Saeki / Masato Machida / Minoru Nagata / Yasushi Sogabe / Yukio Murakami / Kiyoshi Shirai
Standing Audit & Supervisory Board Members	Tomohiro Katano / Kouichi Nakagawa / Hirohisa Hiramatsu
Audit & Supervisory Board Members (part-time)	Morihiro Sekiyama / Akihiko Takashima

Principal Shareholders

(As of March 31, 2013)

Company	Number of shares held (thousands)	Ratio of shares held (%)
Nippon Steel & Sumitomo Metal Corporation	10,000	5.03
The Master Trust Bank of Japan, Ltd. (trust account)	8,365	4.21
Japan Trustee Services Bank, Ltd. (trust account)	7,990	4.02
Sumitomo Mitsui Trust Bank, Limited	7,936	3.99
Sumitomo Mitsui Banking Corporation	6,196	3.12
Japan Trustee Services Bank, Ltd. (trust account 9)	5,531	2.78
Air Water Customers' Stockholding	5,330	2.68
National Mutual Insurance Federation of Agricultural Cooperatives	4,780	2.41
State Street Bank and Trust Company	4,315	2.17
The Hokkaido Bank, Ltd.	4,113	2.07

Information on Shares

(As of March 31, 2013)

Fiscal Year	From April 1 to March 31
Annual General Meeting of Shareholders	June
Record Dates	Annual meeting: March 31
	Year-end dividends: March 31
	Interim dividend: September 30
Number of Shares per Unit	1,000 shares
Manager of the Register of Shareholders	Sumitomo Mitsui Trust Bank, Limited. 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan
Telephone Number for Inquiries	TEL 0120-782-031 (toll-free in Japan)
URL	http://www.smtb.jp/personal/agency/index.html
Means of Advertising	Electronic advertising
	*URL depicting advertising
	http://www.awi.co.jp/ir/koukoku.html
Stock listing	Tokyo, Sapporo