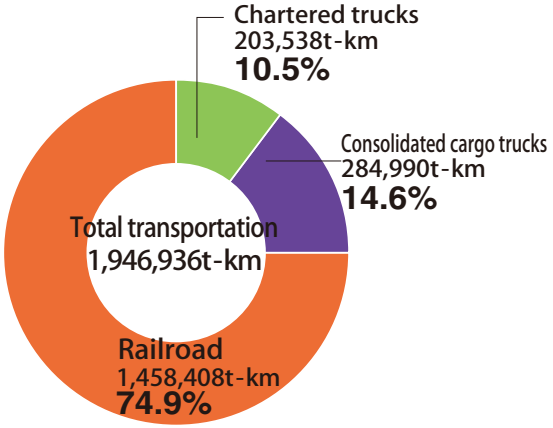
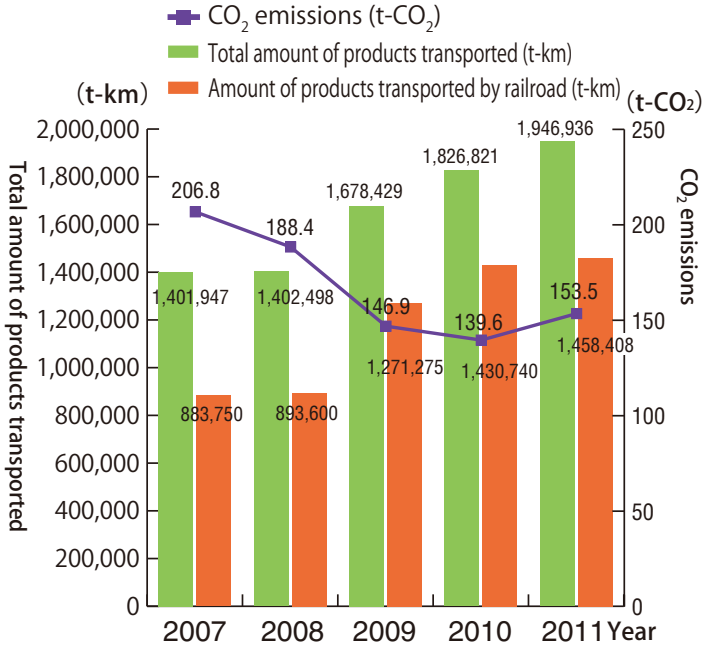
B-e-1 Initiatives for Reduction of CO_2 Emissions during Distribution

HORIBA is committed to reducing the amount of CO_2 emitted during the transportation of products. We started transporting products by railroad between sites in Kyoto and Tokyo as a measure for a modal shift in 2004 and using railroad to transport reagents for medical products produced at our Aso Factory in 2006. The amount of products transported by railroad continues to increase each year, and 75% of all transportation was by railroad in 2011, up 3.4% compared to the previous year. The amount of CO_2 emitted during the transportation of products increased by about 10% over that for 2010. This increase was due to an increase in overall sales for the HORIBA Group. HORIBA Group companies will continue to work together to reduce CO_2 emissions by promoting efficient transportation methods.

Railroad Utilization Rate for the Transportation of Products in 2011
(Scope: Domestic production sites*)



The Amount of Products Transported and the Amount of CO_2 Emissions
(Scope: Domestic production sites*)



* Domestic production sites include the HORIBA, Ltd. head office/factory and Biwako Plant, HORIBA STEC Co., Ltd. head office/factory and Aso Factory and HORIBA Advanced Techno Co., Ltd. head office/factory.

KEYWORDS : Distribution | Reduction of CO_2 Emissions

B-e-2 Overview of the Environmental Impacts: Material in balance

HORIBA's environmental policies are aimed at establishing a production system that minimizes the impact on the global environment and satisfies customer needs through its products and services.

We provide a range of analytical and measuring equipment and peripheral equipment required for environmental measurement. In order to fulfill social responsibilities, we also develop products designed to be environmentally friendly with life cycles in mind, and which comply with environmental laws and regulations. At the same time, together with our suppliers, we have made consistent efforts to conserve resources and energy during production. Our employees also have a strong interest in environmental issues and participate in environmental volunteer work, including cleaning and collecting trash in areas such as alongside rivers and around company offices, conducting environmental classes in elementary and junior high schools, and working at environmental events organized by government organizations.

Environmental Initiatives

In 2011, as in 2010, the domestic HORIBA Group companies adopted the following goals for environmental conservation under the Integrated Management System (Quality, Environment and Occupational Health and Safety) in order to promote efforts to build safe and highly efficient clean factories as well as to contribute to the protection of the global environment.

1. Develop energy and resource conservation activities in order to reduce CO_2 emissions per unit of sales
2. Expand eco-friendly design in new products

Overview of the Environmental Impacts: Material in Balance

We work hard to obtain an overview of the environmental impact caused by the domestic HORIBA Group as a whole during each stage of our business activities. Although environmental impact in 2011 increased in some stages compared to the previous year as a result of improvement in our business performance, thanks to initiatives for electricity and energy conservation, energy consumption and CO_2 emissions decreased.

In 2012, we expect to face a harsh economic environment but will continue our efforts to reduce the total environmental impact of our activities.

KEYWORDS : Environmental Impacts | Material in balance | Production Sites | Non-production Sites

B-e-2 Overview of the Environmental Impacts: Balancing Environmental Impacts

Material Flow Chart for 2011 to Determine Environmental Impacts

Scope: Domestic production sites

HORIBA, Ltd. head office/factory and Biwako Plant, HORIBA STEC, Co., Ltd. head office/factory and Aso Factory, and HORIBA Advanced Techno Co., Ltd. head office/factory

IN PUT

Energy
Electricity 17.24 mil kWh
City gas 677 k m³ Fuel 76 kL

Water
Service water 76 k m³

Materials
Metal 914 tons Glass 1ton
Packaging materials 353 tons
Chemical substances 8 tons
Office paper 23 tons
Liquid gas (LN_2) 1,343 tons

Energy
Vehicle fuel 44 kL

Energy
Electricity 12.35 mil kWh

Post-consumer product collection
Collected products 8 tons

Electricity	Electricity purchased from an electric power company
City gas	City gas as an energy source
Fuels	Gasoline, diesel and kerosene
Service water	Groundwater and city water
Metal	Production material
Glass	Production material

Collection

Packing materials	Materials for wrapping and packing products
Chemical substances	Substances required for the use, development and manufacturing of products
Office paper	Copy paper used in factories and offices
Liquid gas (LN_2)	Liquid nitrogen used in development and manufacturing processes

Vehicle fuels: Fuels used in truck Transportation

Electricity: Electricity consumed for the use of products

Collection: Post-consumer product collection

Business processes

Material procurement

Production

Sales and distribution

Usage

Collection, reused and recycled

Products	Weight of shipments
CO_2	Carbon dioxide caused by the consumption of energy, such as electricity and gas, and by nonenergy greenhouse gases used for production
Chemical substances	Substances emitted mainly during manufacturing processes
Amount of drainage	Wastewater released into sewers and rivers

Total amount discharged	The total amount of valuable objects, general waste and industrial waste discharged from different divisions
Final amount of landfill waste	The amount of landfill waste discarded after reuse, recycling and intermediate treatment
Recycled materials	Discharged paper, wood and plastics that are recycled

CO_2: Carbon dioxide emitted during the transportation of products

CO_2: Carbon dioxide emitted during the use of products

Reused and recycled: Resale
Disposal: Disposal treatment

OUT PUT

Products
5,673 tons

Emissions to air
CO_2 8,879tons
Chemical substances 4tons

Discharge water
Amount of drainage 76km³

Waste
Total amount discharged 418tons
Final amount of landfill waste 8tons
Recycled materials 379tons

Emissions to air
CO_2 154 tons

Emissions to air
CO_2 4,670tons

Reused, recycled, and disposal
Reuse and recycling 2tons Disposal 6tons

KEYWORDS : Environmental Impacts | Material in balance | Production Sites | Non-production Sites

B-e-2 Overview of the Environmental Impacts: Environmental Impact of Production Sites

Group Companies (Production Sites)

Company Name	Abbreviation	Location
HORIBA Instruments Incorporated Irvine Facility	HII (Irvine)	U.S.A. (California)
HORIBA Instruments Incorporated Ann Arbor Facility	HII (AnnArbor)	U.S.A. (Michigan)
HORIBA Instruments Incorporated Troy Facility	HII (Troy)	U.S.A. (Michigan)
HORIBA Instruments Incorporated Edison Office Former HORIBA Jobin Yvon Inc.	HII (Edison) Former JYUS	U.S.A. (New Jersey)
HORIBA Instruments Incorporated Austin Office HORIBA Instruments Incorporated Santa Clara Office Former HORIBA/STEC Incorporated	HII (Austin/Santa Clara) Former SHI	U.S.A. (Texas) U.S.A. (California)
HORIBA Europe GmbH	HE	Germany (Oberursel, Darmstadt)

Company Name	Abbreviation	Location
HORIBA Instruments Limited	HIL	U.K. (Northampton)
HORIBA ABX SAS	HMFR	France (Montpellier)
HORIBA Jobin Yvon SAS	JYFR	France (Longjumeau)
HORIBA (Austria) GmbH	HA	Austria (Tulln)
HORIBA, Ltd	HOR	Japan (Kyoto)
HORIBA STEC, Co., Ltd.	STEC	Japan (Kyoto)
HORIBA Advanced Techno Co., Ltd.	HAT	Japan (Kyoto)
HORIBA KOREA LTD.	HKL	South Korea (Kyunggido)
HORIBA INSTRUMENTS (SHANGHAI) CO., LTD.	HSC	China (Shanghai)

Environmental Impact of Group Production Sites for 2011

	Item/Region	U.S.A					Europe					Asia				
	Group Company Name (Abbreviation)	HII (Irvine)	HII (AnnArbor)	HII (Troy)	HII (Edison)	HII (Austin/ Santa Clara)	HE	HIL	HMFR	JYFR	HA	HOR	STEC	HAT	HKL	HSC
INPUT	Electricity consumption MW•h	296	875	3,787	1,526	1,144	1,366	355	2,841	3,335	37	10,066	6,897	277	55	902
	City gas consumption km^3	-	47	107	81	5	48	3	-	143	5	434	243	0.02	-	-
	Water consumption km^3	9	9	3	9	-	1.8	0.3	23	12	0.2	41	32	4	0.1	5
	Consumption of fuel oil & fuel for vehicles kL	-	100	51	-	42	164	4	-	65	16	37	28	11	3	15
	Quantity of chemicals consumed t	-	-	-	0.02	-	3	-	31	-	0.002	7.3	0.9	0.08	-	-
	Office paper t	2	4	8	4	1	11	0.8	24	4	0.3	17	5	3	0.3	0.4
	Packing materials t	-	-	-	14	-	5	-	823	-	-	324	29	-	4	-
OUTPUT	CO_2 emissions t-CO_2	175	844	2,579	1,071	876	1,172	174	142	615	54	4,211	4,557	112	25	340
	Wastewater discharge km^3	9	1	3	9	-	1.8	0.3	-	12	0.2	41	32	4	0.1	4
	Waste emissions t	107	32	32	119	-	42	18	174	82	16	322	92	4	0.7	8
	Number of employees 人	68	117	80	190	52	400	95	571	305	26	1,417	384	134	27	140

* Data on HORIBA Europe GmbH Oberursel and Darmstadt Offices were listed separately until Gaiareport 2010. Starting with Gaiareport 2011, data on these offices are combined into a single category.

KEYWORDS : Environmental Impacts | Material in balance | Production Sites | Non-production Sites

B-e-2 Overview of the Environmental Impacts: Environmental Impacts of Non-production Sites

Environmental Impacts of Non-production Sites
(HORIBA, Ltd. sales offices and training and recreation facilities/HORIBA Techno Service Co., Ltd. service stations)

	Number of locations and category		HORIBA, Ltd. sales offices (11 locations)			HORIBA Techno Service Co., Ltd. service stations (24 locations)			HORIBA, Ltd. training and recreation facilities (2 locations)		
	Item/Year		2009	2010	2011	2009	2010	2011	2009	2010	2011
INPUT	Electricity consumption	MWh	837	894	836	419	436	380	245	266	240
	LP gas consumption	km^3	0	0	0	0	0	0	10	13	11
	Fuel consumption	kL	66.5	63.7	58.6	165	191	194	-	-	-
	Office paper	t	4.8	5.0	5.1	3.5	3.8	3.7	-	-	-
	Packing materials	t	1.1	1.2	0.9	2.6	3.2	3.8	-	-	-
OUTPUT	CO_2 emissions	t-CO_2	471	486	452	542	609	593	131	161	140
	Amount of waste generated	t	9.3	8.5	6.2	11.7	14.6	20.0	-	-	-

Sales Offices (11 locations): Tokyo, Sendai, Utsunomiya, Tsukuba, Yokohama, Nagoya, Toyota, Hamamatsu, Osaka, Hiroshima, Fukuoka
Service stations (24 locations): Sapporo, Sendai, Utsunomiya, Ichihara, Kashima, Tsukuba, Kawaguchi, Tokyo, Kokubunji, Yokohama, Fuji, Hamamatsu, Toyota, Nagoya, Toyama, Yokkaichi, Osaka, Himeji, Kurashiki, Hiroshima, Yamaguchi, Fukuoka, Oita, Kumamoto
Training and recreation facilities (2 locations): Takashima (Shiga Prefecture) and Kyoto

KEYWORDS : Environmental Impacts | Material in balance | Production Sites | Non-production Sites

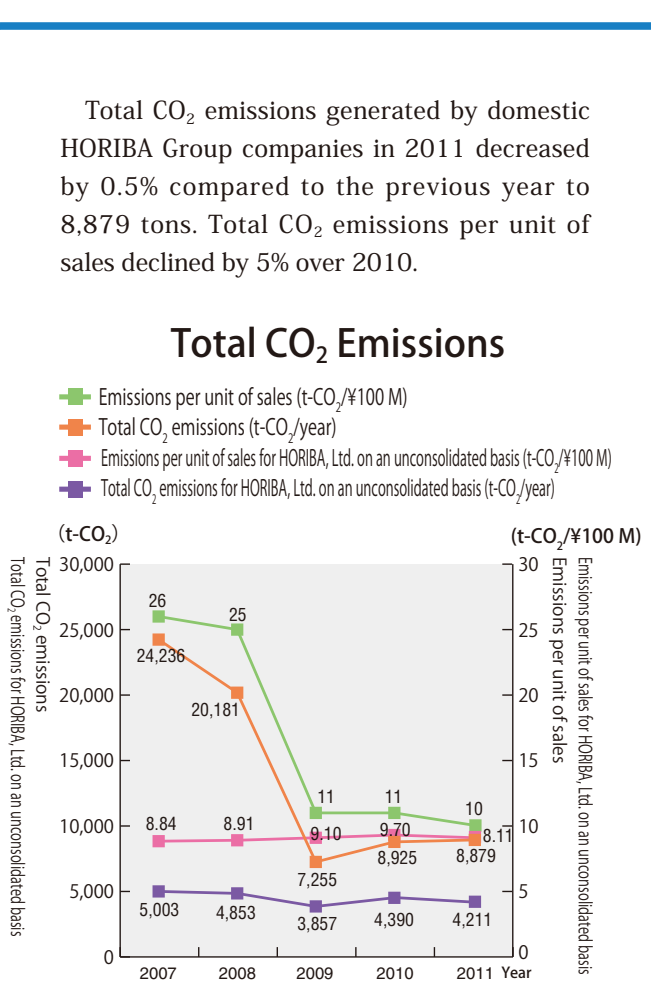
B-e-3 CO_2 Emission Reduction Initiatives

Total CO_2 emissions generated by domestic HORIBA Group companies in 2011 decreased by 0.5% compared to the previous year to 8,879 tons. Total CO_2 emissions per unit of sales declined by 5% over 2010.

Also, CO_2 emissions for HORIBA, Ltd. alone fell by 4% compared to 2010 to 4,211 tons. Emissions per unit of sales were down 16% compared to the previous year.

The major reason for these decreases was the effectiveness of the measures the company took to conserve electricity and save energy in response to the requests of the government and other parties after the Great East Japan Earthquake.

Total CO_2 Emissions

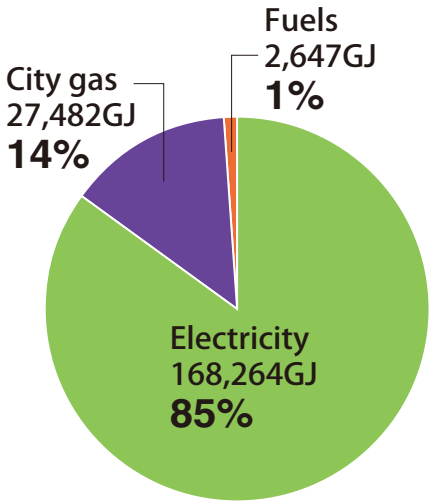


***1 CO_2 emission factor:**
CO_2 emission factor values were calculated based on the average (0.378 kg of CO_2 per kWh) for all electric companies in Japan. The official values of the Kansai Electric Power Company are adopted for the Kyoto District for 2005 onward. Values for city gas are calculated using the official values of Osaka Gas Co., Ltd from 2005.

***2 City gas consumption:**
Values are converted to those in standard conditions (0° C, 1 atmospheric pressure).

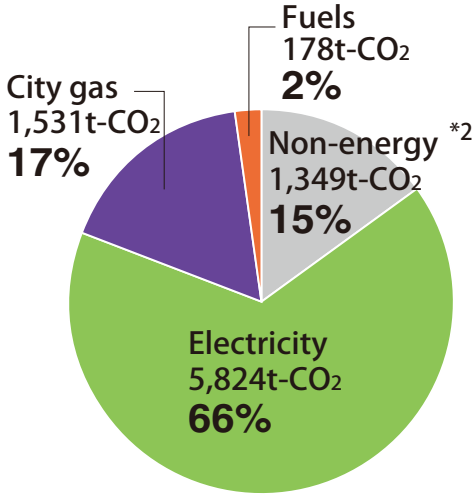
Energy Consumption by Type in 2011

(Scope: Domestic production sites*1)



Greenhouse Gas Emissions (CO_2 Equivalent) by Type of Energy in 2011

(Scope: Domestic production sites*1)



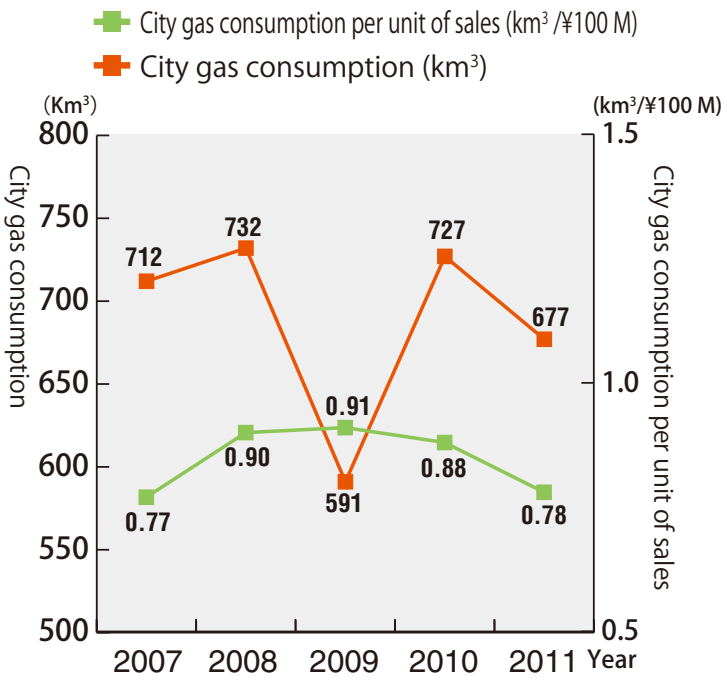
*1 Domestic production sites include the HORIBA, Ltd. head office/factory and Biwako Plant, HORIBA STEC Co., Ltd. head office/factory and Aso Factory, and HORIBA Advanced Techno Co., Ltd. head office/factory.
*2 Non-energy: Sulfur hexafluoride, perfluoromethane, etc.

KEYWORDS : Reduction in CO_2 Emissions | Energy Conservation | City Gas | Electricity

B-e-3 Energy Consumption

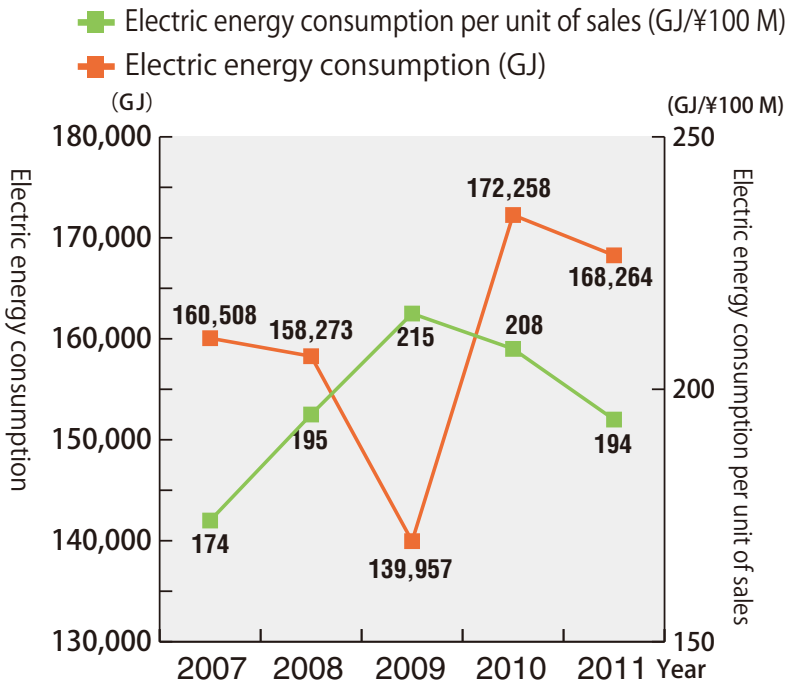
City Gas Consumption

(Scope: Domestic production sites*)



Electric Energy Consumption

(Scope: Domestic production sites*)



* Domestic production sites include the HORIBA, Ltd. head office/factory and Biwako Plant, HORIBA STEC Co., Ltd. head office/factory and Aso Factory, and HORIBA Advanced Techno Co., Ltd. head office/factory.

KEYWORDS : Reduction in CO_2 Emissions | Energy Conservation | City Gas | Electricity

B-e-3 Response to Requests for Electricity Conservation

The principal measures we took on a company-wide scale in response to the requests of the government and other parties for electricity conservation in 2011 were as follows:

● Common matters
- All-out efforts to achieve “no overtime-work days” and reductions in overtime hours through increased productivity
- Centralization of desk work areas during overtime and holiday work
- Unplugging equipment not in use (reduction of stand-by power consumption)

● Air-conditioning systems and ventilation
- Thorough efforts to maintain room temperatures at 28˚C and turn off air-conditioning systems 30 minutes prior to closing the office
- Limiting of the operating time of air conditioning systems in common spaces and hallways

● Lighting
- Thorough efforts to turn off lights during lunchtime
- Thorough efforts to turn off unnecessary lights during overtime hours
- Removal of some lights in common-use spaces, lavatories, and hallways

● OA equipment
- Adjustment of PC/CRT monitor brightness, reduction of standby power consumption
- Centralization of copiers and printers

● Elevators
- Reduction of the number of elevators in operation and encouragement of the use of stairs

● Work areas
- Removal of some lights and the lowering of window blinds to block sunlight
- Turning off of some shared equipment (e.g., refrigerators and electric kettles)

● Other
- Reduction in the brightness of signboard lighting
- Turning off vending machine lighting completely or partially

● Production and development equipment
- All-out efforts to stop equipment from idling when not in use
- Change of methods for using equipment and operation hours mainly through reviews of procedures

KEYWORDS : Reduction in CO_2 Emissions | Energy Conservation | City Gas | Electricity

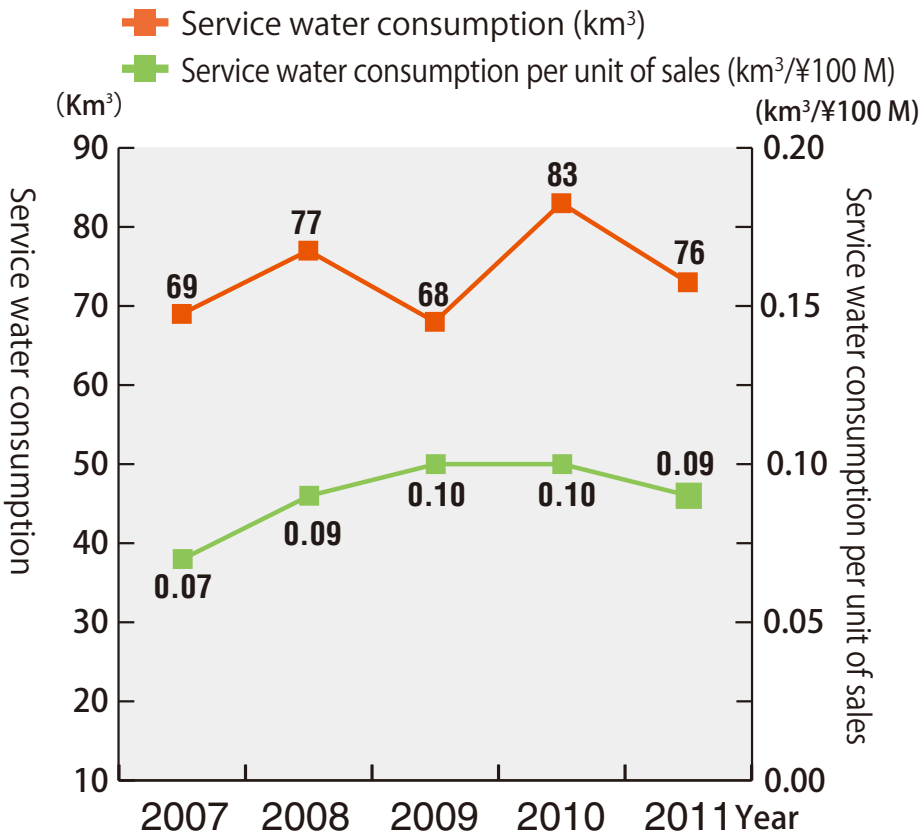
B-e-3 Monitoring of Wastewater and Use of Service Water

Due in part to continuous monitoring by our round-the-clock monitoring system, HORIBA, Ltd. has not caused any accidents that have resulted in wastewater being discharged in amounts exceeding the legal limit over the past several years. We maintained this record in 2011 and we intend to maintain it for many years to come.

Meanwhile, in 2010 the amount of service water used by domestic group companies increased by about 23% compared to the previous year due to a rapid increase in the production of the group companies. In 2011, however, the amount decreased by about 9% due to spillover effects from the electricity saving and energy conservation measures. In the future, we will continue to make efforts to make more efficient use of water by monitoring the amount of service water used.

Service Water Consumption

(Scope: Domestic production sites*)



* Domestic production sites include the HORIBA, Ltd. head office/factory and Biwako Plant, HORIBA STEC Co., Ltd. head office/factory and Aso Factory, and HORIBA Advanced Techno Co., Ltd. head office/factory.

KEYWORDS : Monitoring of Wastewater | Use of Service Water | Chemical Substances | PRTR | Atmospheric Measurement

B-e-3 Wastewater Measurement Categories and Trends in Measured Values

Scope: HORIBA, Ltd. head office/factory

(Units: mg/L) except pH　* Under detection limit so omitted

Regulation Category		Kyoto City Regulations	HORIBA Standards	Measured Result (maximum)			Detection Limit Value
				2009	2010	2011	
Environmental categories	pH	5 ~ 9	-	6.1 ~ 7.8	6.3 ~ 8.0	6.5 ~ 7.9	-
	n-Hexane extract	5	3.5	0.5	0.2	0.3	0.2
	Phenol	1	0.3	*	*	0.02	0.01
	Copper	3	0.9	0.18	0.076	0.035	0.002
	Zinc	2	1.0	0.33	0.15	0.15	0.002
	Iron (soluble)	10	3.0	0.1165	0.04	0.04	0.0004
	Manganese (soluble)	10	3.0	0.03	0.01	*	0.01
	Nickel	2	0.6	0.01	*	0.01	0.01
Toxic substances	Boron and its compounds	10	3.0	0.2	0.2	0.2	0.1
	Fluorine and its compounds	8	4.5	1.9	1.5	1.3	0.1
	Cadmium and its compounds	0.1	0.03	*	*	*	0.005
	Cyanogen compounds	1	0.3	*	*	*	0.1
	Lead and its compounds	0.1	0.07	*	*	*	0.01
	Hexavalent chromium	0.5	0.15	0.0017	*	*	0.0004
	Arsenic and its compounds	0.1	0.03	*	*	*	0.005
	Mercury and its compounds	0.005	0.0015	*	*	*	0.0005
	Trichloroethylene	0.3	0.09	*	*	*	0.03
	Dichloromethane	0.2	0.14	*	*	*	0.002
	Carbon tetrachloride	0.02	0.014	*	*	*	0.002
	1,1,1-trichloroethane	3	0.9	0.0006	*	*	0.0005

Note: Regulation figures are from Kyoto City sewage and drainage standards.
* There has been no case over the past three years where factory wastewater has exceeded legal control standards

KEYWORDS : Monitoring of Wastewater | Use of Service Water | Chemical Substances | PRTR | Atmospheric Measurement

B-e-3 Chemical Substance Use

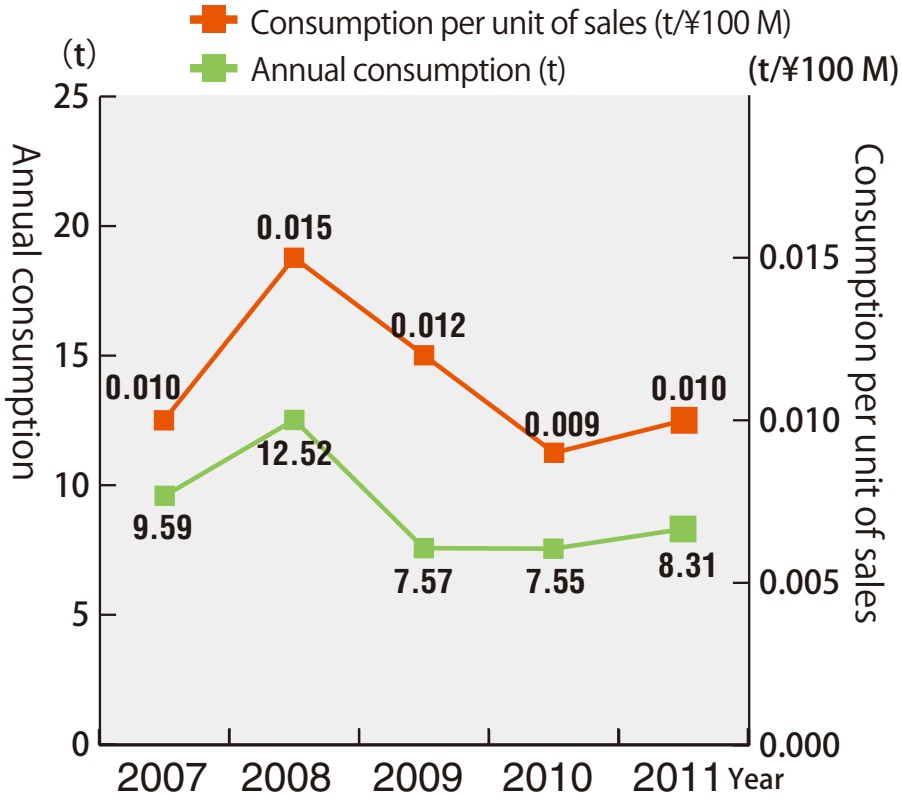
The total amount of chemical substances (measured by weight) used by domestic HORIBA Group companies in 2011 was 8.31 tons, just slightly more than in 2010. The major reason for this increase was the continuous improvement in business performance. Through activities to reduce the risks involved in using chemical substances at each workplace as much as possible, HORIBA, Ltd. reduced the amount of chemical substances stored at its sites by 0.88 tons compared to 2010. Meanwhile, we have implemented measures regarding chemical substances specified in the revised PRTR Law since 2010, and there were no chemical substances whose annual use exceeded the legally specified standard (1 ton; 0.5 tons for type I specified substances).

In 2012, we plan to revise our system in order to further reduce the risks involved in the use of chemical substances.

*** PRTR (Pollutant Release and Transfer Register) Law:** Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

Trend in Quantity of Chemical Substances Consumed

(Scope: Domestic production sites*)



* Domestic production sites include the HORIBA, Ltd. head office/factory and Biwako Plant, HORIBA STEC Co., Ltd. head office/factory and Aso Factory, and HORIBA Advanced Techno Co., Ltd. head office/factory.

KEYWORDS : Monitoring of Wastewater | Use of Service Water | Chemical Substances | PRTR | Atmospheric Measurement

B-e-3 Main Chemical Substances Handled

Scope: HORIBA, Ltd. head office/factory

Unit: kg

CAS No.	Substance (IUPAC)	Annual Amount Handled			Amount Transferred			Amount Recycled			Main Application
		2009	2010	2011	2009	2010	2011	2009	2010	2011	
67-63-0	Isopropyl alcohol	339	423	404	78	116	126	0	0	0	Clean printed circuit boards
64-17-5	Ethanol	351	384	406	136	102	99	0	2	0	Clean components
67-64-1	Acetone (dimethyl ketone)	334	229	403	321	203	382	0	0	0	Cleaning
124-18-5	n-Decane (petroleum hydrocarbon type cleaning agent)	143	338	78	0	0	0	0	0	0	Clean metals
7664-38-2	Phosphoric acid	180	146	121	69	77	76	0	0	0	Product additives
7439-92-1	Lead solder	307	175	165	0	0	0	225	111	107	Printed circuit boards
7440-31-5	Lead-free solder	1,843	1,415	1,279	0	1	2	1,087	1,007	921	Printed circuit boards
7803-57-8	Hydrazine monohydrate	14	15	26	14	15	26	0	0	0	Product inspection
1330-20-7	Xylene	322	120	11	322	120	11	0	0	0	Clean semiconductors/ components

***CAS No.:** Numerical identification numbers for chemical substances managed by the Chemical Abstracts Service, a division of the American Chemical Society

B-e-3 PRTR Substances for 2011

Scope: HORIBA, Ltd. head office/factory

Minimum target treatment quantity: 10 kg Unit: kg

Ordinance No.*1	Substance	Annual Amount Handled	Added to Product	Amount Remove	Amount Emitted			Amount Transferred	Amount Recycled	Main Application
				Compounds Neutralized/ Decomposed/ Synthesized	Air	Water	Soil	Industrial Waste	Transferred Outside	
305	Lead compounds	164.7	57.7	0.0	0.0	0.0	0.0	0.0	107.0	Printed circuit board soldering
185	Dichloropentafluoropropane (HCFC-225); product name H-997	125.5	0.0	0.0	125.5	0.0	0.0	0.0	0.0	Product inspection
82	Silver and its water-soluble compounds	59.1	15.5	0.7	0.7	0.0	0.0	1.1	41.1	Printed circuit board soldering
30	Linear alkyl benzene sulfonate acid and its salts	26.4	0.0	0.0	0.0	0.0	0.0	26.4	0.0	For semiconductors
374	Hydrofluoric acid and its watersoluble salts	24.5	0.7	0.1	0.0	0.0	0.0	23.7	0.0	For semiconductors
245	Thiourea	23.2	20.0	0.5	0.0	2.5	0.0	0.2	0.0	Reagent production
20	2-aminoethanol	18.6	0.0	0.0	0.0	1.1	0.0	17.5	0.0	For semiconductors
394	Beryllium and its compounds	12.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	Product components
11	Sodium azide	11.4	2.6	0.6	0.0	7.2	0.0	1.0	0.0	Product tuning
80	Xylene	10.5	0.0	0.0	0.0	0.0	0.0	10.5	0.0	Clean components, semiconductors
392	Normal hexane	10.0	0.3	0.1	0.8	0.0	0.0	8.8	0.0	Commissioned analysis and product development
Total		485.9	108.8	2.0	127.0	10.8	0.0	89.2	148.1	

*** PRTR (Pollutant Release and Transfer Register) Law:** Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

***1 Ordinance No.:** Numbers given in Table 1 of the Enforcement Ordinance for the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

KEYWORDS : Monitoring of Wastewater | Use of Service Water | Chemical Substances | PRTR | Atmospheric Measurement

B-e-3 Atmospheric Measurement Categories and Trends in Measured Values (at vents and site perimeters)

Scope : HORIBA, Ltd. head office/factory

Measurement Category		Unit	Kyoto Prefecture Regulations	HORIBA Standards	Measured Result (maximum)		
					2009	2010	2011
At vents	Xylene	Vol ppm	300	28	< 2	< 2	< 2
	Fluorine compounds	mg/m^{3}N	5	3.5	< 0.5	0.8	< 0.5
	Hydrogen chloride	Vol ppm	20	6	< 1	< 1	< 1
	Nitrogen oxides	Vol ppm	100	30	< 10	< 10	< 10
At site perimeters	Xylene	Vol ppm	3	—	< 0.3	< 0.3	< 0.3
	Fluorine compounds	mg/m^{3}N	0.05	—	< 0.01	< 0.01	< 0.01
	Hydrogen chloride	Vol ppm	0.2	—	0.02	< 0.02	0.11
	Nitrogen oxides	Vol ppm	1	—	0.019	0.016	0.014

Note: Regulation figures are based on ordinances in place to protect Kyoto Prefecture environment.
* There have been no cases over the past three years where the control standards for substances hazardous to the air specified by laws were exceeded.

KEYWORDS : Monitoring of Wastewater | Use of Service Water | Chemical Substances | PRTR | Atmospheric Measurement

B-e-4 Initiatives for Waste Reduction

HORIBA, Ltd. achieved its zero-emission goal in the second half of 2006 and maintained it until the end of 2009. However, in 2010, we were unable to meet our zero-emission requirements due to the disposal of unrecyclable old equipment, which we had no choice but to deliver to landfill. In 2011, we again achieved our zero-emission goal by rectifying this situation.

In 2011, the total volume of waste generated by HORIBA, Ltd. alone increased by 15% compared to the previous year due to increased production. The amount generated by domestic HORIBA Group companies as a whole increased by 39 tons (up about 10%).

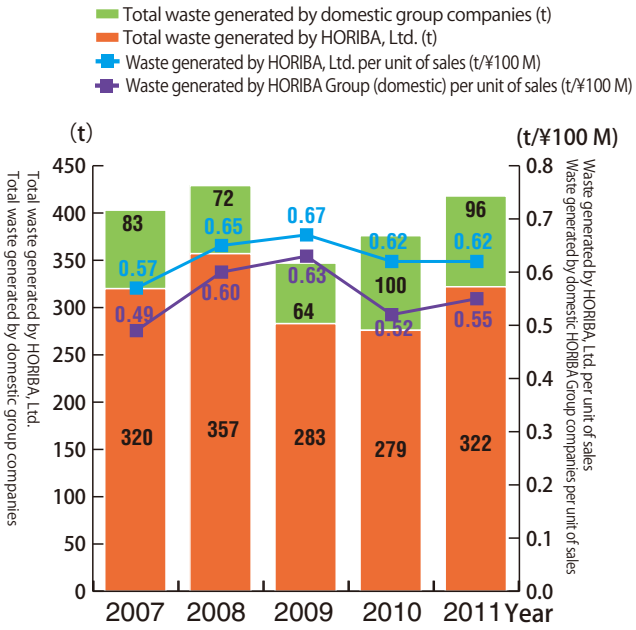
In 2012, in order to achieve our zero-emission goal, the HORIBA Group plans to analyze and confirm the actual conditions of, and improve the overall situation of, waste reduction.

*** HORIBA's definition of zero emissions:**
"The total amount of landfill waste must not exceed 1 percent of total waste generated."

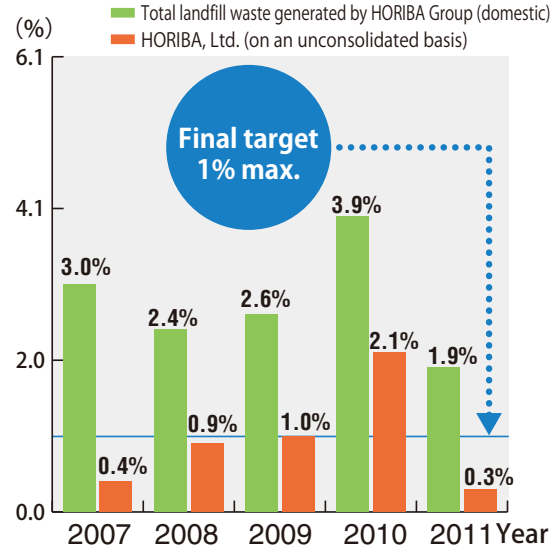
Total waste generated:
A generic term for waste discharged from all divisions because it is no longer required (includes valuable resources, general waste and industrial waste).

Total amount of landfill waste:
The total amount of waste delivered to landfill after processing for reuse, recycling, or intermediate treatment (including neutralization, change into nonhazardous substance, and incineration).

Total Waste Generation and Waste Generation per Unit of Sales



Trend in Total Amount of Landfilled Waste



Scope:

Domestic production sites:
HORIBA, Ltd. head office/factory and Biwako Plant, HORIBA STEC, Co., Ltd. head office/factory and Aso Factory and HORIBA Advanced Techno Co., Ltd. head office/factory

Domestic group companies:
HORIBA STEC, Co., Ltd. and HORIBA Advanced Techno Co., Ltd.

HORIBA Group (domestic):
HORIBA, Ltd., HORIBA STEC, Co., Ltd. and HORIBA Advanced Techno Co., Ltd.

KEYWORDS : Waste Reduction

B-e-5 HORIBA's Product Design for Environment

When developing new products, we design them to be environmentally friendly with life cycles in mind. We recognize products that meet our company standards as being energy-efficient green products and ensure that these products are presented in our catalogues with HORIBA's Green Labels. As a result of our efforts, the amount of CO_2 emitted during the use of our products, calculated based on the accumulated total for the past ten years, has decreased by approximately 35% compared to previous models.

HORIBA's Green Label and Logo

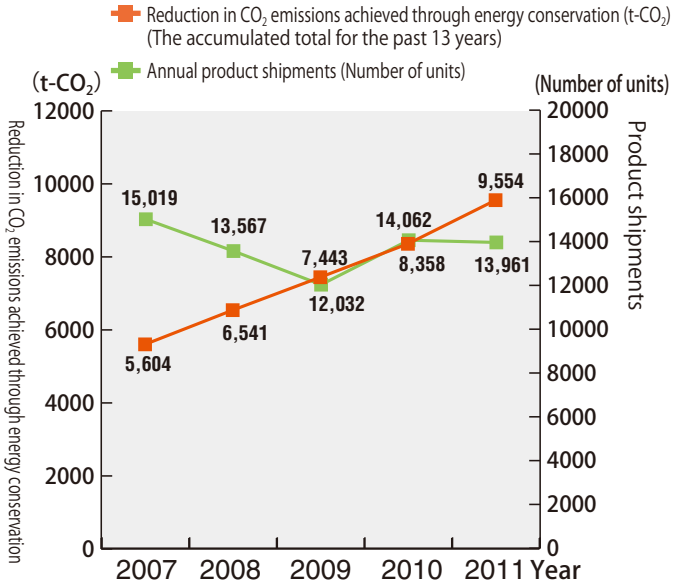
Harmoniearth

Evaluation Categories of Design for Environment

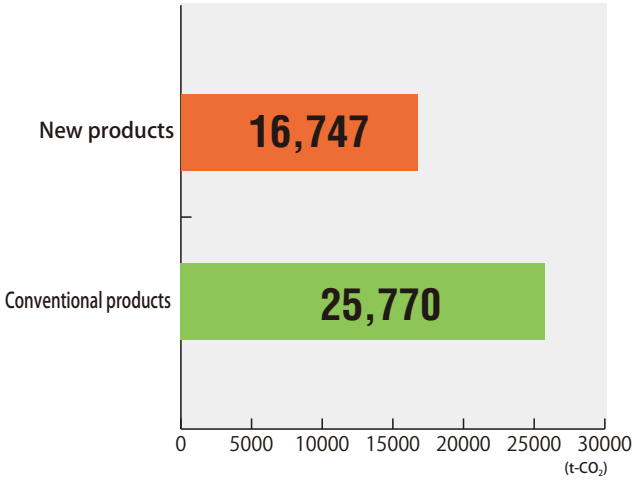
1. Lightness
2. Longevity
3. Ease of recycling
4. Ease of dismantling
5. Ease of processing
6. Environmental friendliness
7. Energy-saving
8. Information provision

Reduction in CO_2 Emissions through Energy-efficient Green Products

Scope: HORIBA, Ltd.



Comparison of CO_2 Emissions between New and Conventional Energy-Efficient Green Products



Calculated based on the cumulative number of units sold over the past decade

KEYWORDS : Design for Environment | Green Products

B-e-5 Eco-Friendly Product: HORIBA, Ltd.

Eco-Friendly Product Developed by HORIBA, Ltd.

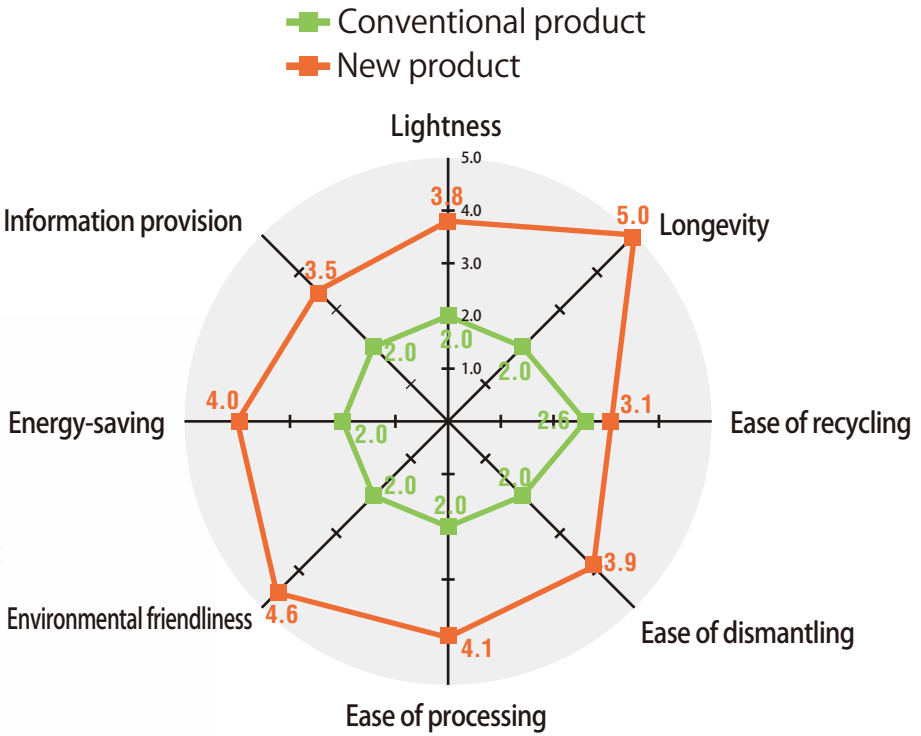
Desktop pH and Water Quality Analyzer (LAQUA Series)

The LAQUA Series measures pH, one important indicator of a solution's chemical characteristics, as well as electrical conductivity, which indicates a solution's ability to conduct an electric current and is known to be proportional to the amount of electrolytes and solid matter dissolved in the solution.

These analyzers, which enable more comfortable and accurate measurement, can be used in the same manner as smartphones.

Their eco-friendly designs consider the needs of the environment, achieving substantial energy savings and weight reduction. Power consumption, installation area, and the number of parts used were all reduced by 20%.

In addition, these systems have a front glass-top panel, increasing their resistance to chemicals and thereby their durability.



KEYWORDS : Design for Environment | Green Products

B-e-5 Eco-Friendly Product: HORIBA STEC, Co., Ltd.

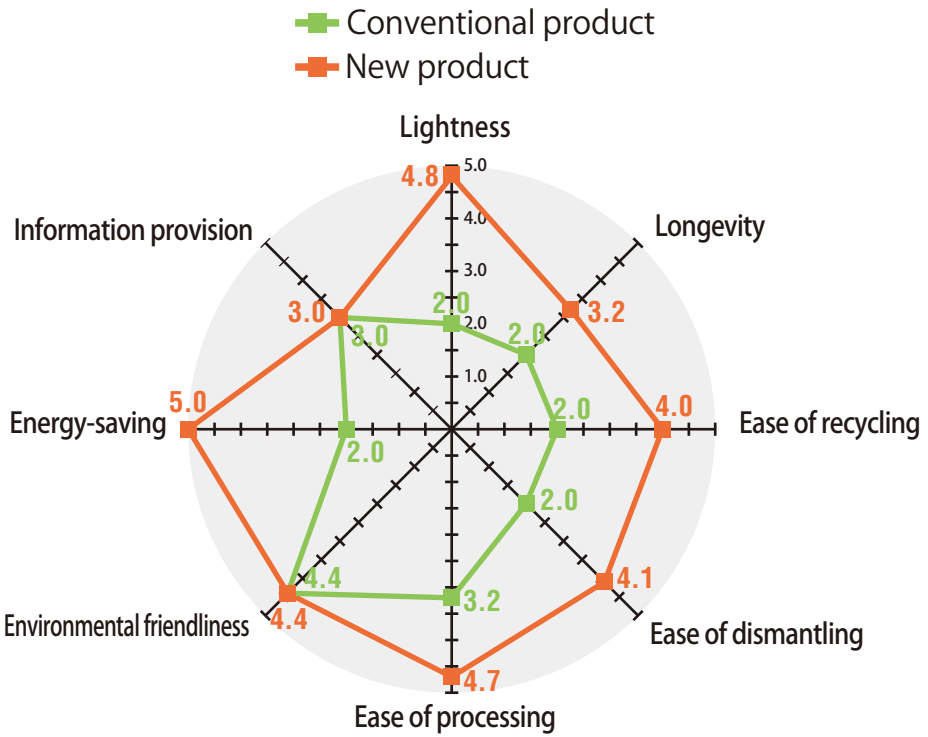
Eco-Friendly Product Developed by HORIBA STEC, Co., Ltd.

Mass Flow Module SEC-Z700X

The mass flow controller (MFC) controls the flow of fluids used in systems such as semiconductor production equipment. In a gas supply system that uses several MFCs, a change in the flow of fluids for one MFC causes fluid pressure to fluctuate, adversely affecting the controllability of other MFCs. For this reason, customers usually install a pressure regulator in front of their MFCs.

One aspect of SEC-Z700X's environmentally friendly design is its combination of an MFC and pressure sensor into a single module in order to prevent the flow control system from being easily affected by pressure fluctuations caused by pressure signal feedback to the system. This eliminates the need for a pressure regulator and pressure gauge, both essential components of conventional gas supply systems. Through this innovation, HORIBA STEC has substantially reduced the size and weight of SEC-Z700X.

In the future, we expect that demand for SEC-Z700X will increase rapidly and that this device will contribute to industries such as those using semiconductor production equipment as they strive to reduce their environmental impact.



KEYWORDS : Design for Environment | Green Products

B-e-5 Eco-Friendly Product: HORIBA Advanced Techno Co., Ltd.

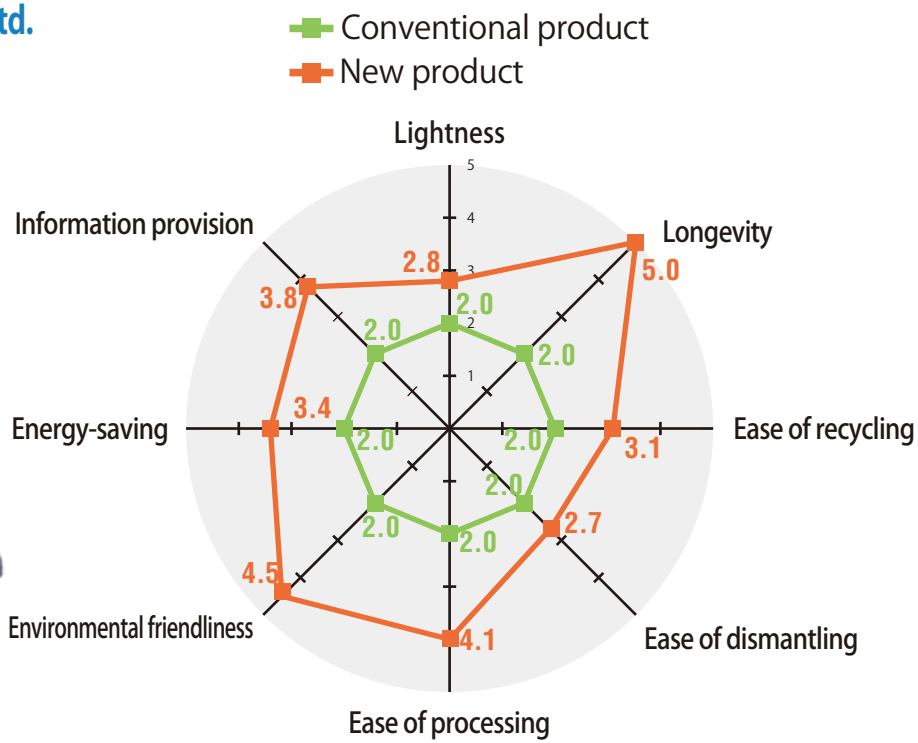
Eco-Friendly Product Developed by HORIBA Advanced Techno Co., Ltd.

(On-site Industrial) Optical Dissolved Oxygen Meter HD-200FL

The on-site industrial optical (fluorescent) dissolved oxygen meter HD-200FL is suitable for monitoring aeration tanks such as those used in sewage and wastewater treatment processes.

Unlike previous membrane type polarographic sensors, HD-200FL eliminates the need to replace electrolyte (internal solution) or warm up the sensor, thereby enabling unprecedentedly high maintainability and low running costs by making the most of its characteristics as an optical sensor. In addition, other features increase the convenience of the meter, including the use of a sensor cap with a built-in memory chip and a function for notifying the use when the fluorescent membrane should be replaced.

One aspect of the HD-200FL's environmentally friendly design is that it prolongs the life of the meter by extending the replacement cycle of the sensor's fluorescent membrane and avoids using electrolyte. In addition, harmful substances such as lead, the use of which is prohibited, are not used for parts or in production processes. This too significantly increases the meter's ability to protect the environment.



KEYWORDS : Design for Environment | Green Products

B-e-6 Environmental Accounting (1)

The results of environmental accounting for HORIBA, Ltd. in 2011 show that among business area costs, global environmental protection costs decreased by 56% compared to 2010. This is because the large investments we made in air conditioning systems ran their course. Meanwhile, in terms of environmental protection effects, 17 indicators such as total energy inputs and greenhouse gas emissions declined compared to the previous year. This is likely a manifestation of the direct and indirect effects of the electricity saving and energy conservation measures that we implemented.

Environmental Accounting Standards:

1) Investment/expenditure classification: Based on financial accounting standards
2) Costs: Includes personnel, management and R&D expenses (excl. depreciation)
3) i) Personnel costs: Average labor costs × no. hrs environmental protection activities
   ii) R&D economic benefit: Contribution of eco-friendly products to operating income
4) Based on Environmental Accounting Guidelines by the Ministry of the Environment (2005 version)

Environmental Protection Costs (by Business Activity)

Scope: HORIBA, Ltd. head office/Biwako Plant/11 sales offices and it's training center, HORIBA Techno Service Co., Ltd. 24 service stations
Accounting period: January 1, 2011 to December 31, 2011

(Millions of yen)

Environmental Protection Costs (by Business Activity)							Economic Effect (Internal)	
Category		Key Actions	Amount Invested	Total Cost	Total	Year-on-year Comparison (%)	Benefits of Amount (M\)	Remarks
(1) Business area cost			9.0	61.6	70.6	77.1	110.0	
Details	1. Cost of pollution prevention	Maintained existing exhaust and drainage facilities; provided regular and preventive maintenance	0.0	6.5	6.5	86.5	12.1	Power-saving in facilities, effective operational benefits
Details	2. Cost of global environmental protection	Switchover of all air conditioners from electricity to gas, promoted switchover to energy-efficient facilities, and other initiatives	8.1	7.6	15.7	43.7	32.5	Conversion to energy-efficient facilities, modification of equipment, effect of electricity conservation
Details	3. Cost of resource circulation	Water conservation and promoted zero emissions	0.9	47.5	48.4	100.5	65.4	Reduction of water consumption, etc.
(2) Upstream and downstream cost		Promoted green purchasing, and collection and reuse of used products	9.1	13.3	22.4	84.3	7.0	Promotion of green purchasing and reuse of collected used products
(3) Administration cost		Improved operational efficiency of environmental management systems, promoted ecotraining and other initiatives	0.0	100.2	100.2	96.5	2.3	Benefit of environmental advertisements, etc.
(4) R&D cost		Promoted design for environment, the leadfree initiative, and other initiatives	52.6	570.8	623.4	84.0	933.2	Expansion of eco-friendly products, contribution to operating income
(5) Cost of social activities		Actively promoted awareness-raising activities related to environmental technology and other initiatives	0.0	15.6	15.6	91.7	0.2	Support of environmental improvement, promotion of enlightenment initiatives
(6) Cost of environmental remediation		N/A	0.0	0.0	0.0	0.0	0.0	N/A
Total cost of environmental protection			70.7	761.5	832.2	84.8	1,052.7	

KEYWORDS : Environmental Accounting | Cost of Environmental Protection | Environmental Protection Benefits

B-e-6 Environmental Accounting (2)

Environmental Protection Benefits

Scope: HORIBA, Ltd. head office/factory/11 sales offices and it's training center, and HORIBA Techno Service Co., Ltd. 24 service stations
Accounting period: January 1, 2011 to December 31, 2011

Environmental Protection Benefits					
Category	Environmental Performance Indicator (unit)	2010 (standard)	2011	Difference from Standard (Environmental protection benefits)	
Benefits in terms of resources invested	Total energy input (GJ)	147,121	141,404	△ 5,717	*1
	Power consumption (GJ)	115,837	112,450	△ 3,387	*1
	City gas consumption (GJ)	21,144	18,917	△ 2,227	*1
	Fuels (diesel, kerosene and gasoline)	10,140	10,037	△ 103	*1
	Core production elements input (iron, SUS, aluminum, copper and glass) (t)	1,229	915	△ 314	
	Recycled resource input (t) Office paper and packing materials (cardboard, wood and polystyrene)	387	355	△ 32	
	Water input (km^3)	51	45	△ 6	
	Groundwater input (km^3)	16	17	1	
	City water input (km^3)	35	28	△ 7	
Benefits in terms of environmental impact and waste	Greenhouse gas emissions (t-CO_2)	5,644	5,398	△ 246	*2
	Greenhouse gas emissions through electric energy consumption (t-CO_2)	3,780	3,665	△ 115	*2
	Greenhouse gas emissions through city gas consumption (t-CO_2)	1,183	1,058	△ 125	*2
	Greenhouse gas emissions through fuel consumption (t-CO_2)	680	673	△ 7	*2
	Total waste generated (t)	302	348	46	
	Final waste at landfill (t)	6	1	△ 5	*3
	Total water drained (km^3)	48	45	△ 3	
	Water quality (BOD/COD) (mg/L)	N/A	N/A	-	
	NOx and SOx emissions (t)	N/A	N/A	-	
	Malodor (max. density) (mg/L)	N/A	N/A	-	

Environmental Protection Benefits					
Category	Environmental Performance Indicator (unit)	2010 (standard)	2011	Difference from Standard (Environmental protection benefits)	
Benefits in terms of goods and services generated	Energy consumption during operation (GJ) (Total of eco-friendly energysaving products)	45,289	54,759	9,470	*1
	Greenhouse gas emissions during operation (t-CO_2) (Total of eco-friendly energy-saving products)	1,754	2,121	367	*2
	Hazardous substances emitted during disposal of used products and recycling of containers and packaging (t)	14	6	△ 8	
	Amount of used products, containers and packaging recycled (t)	2	2	0	
	Amount of product packing materials used (t)	361	329	△ 32	
Other benefits	Greenhouse gas emissions from transporting products (t-CO_2)	132	138	6	*2
	Products transported (t-km)	1,785,988	1,858,294	72,306	
	Soil contamination (m^2)	0	0	-	
	Noise (dB) *at night	55	54	△ 1	
	Vibration (dB) *in evening	Less than 30	40	-	

***1: GJ (gigajoule):** Converted and calculated at 0.00976 GJ/kWh (from the April 1, 2006 public notification of the Energy Conservation Center).
***2: CO_2 emissions factor:** Calculated assuming 0.378 kg of CO_2 per kWh, which is the average of all electric companies in Japan. The official value of the Kansai Electric Power Company is used for the Kyoto District.
***3:** Only for HORIBA, Ltd. head office/factory

Economic Benefits from Environmental Protection Activities

(Millions of yen)

Economic Benefits from Environmental Protection Activities (Substantial Benefits)		
Effect		Amount
Profit	Sales of solder residue, metal waste, etc. generated in production processes	3.7
	Gain on sale of recycled products	50.1
Total		53.8

KEYWORDS : Environmental Accounting | Cost of Environmental Protection | Environmental Protection Benefits

B-e-7 Initiatives for the Growth of the Analysis and Measurement Industry

Participation on the boards of industrial associations, etc.

In May 2011, Atsushi Horiba (Chairman, President and CEO of HORIBA, Ltd.) was appointed Chairman and Kansai Branch Director of the Japan Electric Measuring Instruments Manufacturers' Association (JEMIMA) and Vice President (for International Operations) of the Japan Analytical Instruments Manufacturers' Association (JAIMA).

We are striving to stimulate international strategic activities targeted at allowing the analysis and measurement industry to achieve further growth in order to contribute to key industries around the world and lay the foundation for the next evolution of our industry.

In May 2011, President Atsushi Horiba became Chairman and Kansai Branch Director of the Japan Electric Measuring Instruments Manufacturers' Association.

Masao Horiba Awards 2011

The Masao Horiba Awards were launched in 2003, a year that marked the 50th anniversary of HORIBA, Ltd., to support young researchers engaged in analysis- or measurement-related research. The theme for 2011 was "Achieving Ultra-high Sensitivity and Ultra-high Speed in Analysis and Measurement Technologies Using Electromagnetic Waves (Near Infrared to X-rays)." A specific theme is set for each year, encouraging researchers in Japan and abroad to conduct unique research on that theme.

2011 Masao Horiba Awards Ceremony (October 17, 2011)

KEYWORDS : Analysis and Measurement Industry | Masao Horiba Awards | Response to the Great East Japan Earthquake | Program for Making Use of Corporate Engineers | Support for Victims of Crimes | Kyoto City on its Environmental Policy

B-e-8 The HORIBA Group's Response to the Great East Japan Earthquake

The HORIBA Group set up a disaster response headquarters to identify and handle the damage caused to the Group by the disaster as well as to offer services to meet the needs of our customers and business partners suffering serious damage in the Tohoku and Kanto regions (e.g., by lending out medical equipment, distributing test reagents, and providing emergency vehicles for services). At the same time, we worked to accelerate the supply of our products necessary for reconstruction work.

In addition, we continue to strive to enhance our risk management by improving our system for contacting employees during emergencies as well as by implementing safety confirmation training.

Disaster response headquarters

Product-related

Supplying products necessary for reconstruction work

We have made company-wide efforts to increase our production of environmental radiation monitor for measuring radioactivity and stack gas analyzers, which are used at thermal power stations to measure stack gases, in order to help such power stations resume operation. In addition, we have lent out cartridges for blood glucose analyzers (used for measuring blood glucose levels) and automatic blood cell counters plus CRP* free of charge. These have been used in the temporary clinics set up in disaster-stricken areas.

* C-reactive protein. Blood CRP level is a known indicator of inflammation.

Environmental radiation monitor

Blood cell counters lent out free to a temporary clinic set up in Miyako City, Iwate Prefecture

Employee's opinion

The roles HORIBA should play as a manufacturer of analysis and measurement instruments

Masayori Sawamoto, HORIBA, Ltd.

As demand for environmental radiation monitors grew after the Great East Japan Earthquake struck, we responded to deliver such instruments to customers as quickly as possible. What I saw when I visited Fukushima Prefecture for the first time strengthened my resolve to help people measure the levels of invisible, odorless radiation. Based on such resolve, I carry out my work at the company.

In 2011, the words "recovery" and "quick response" were always on my mind, but in 2012 the word is "reconstruction." I will continue to provide HORIBA products to customers while thinking about the roles HORIBA should play as a manufacturer of analysis and measurement instruments, giving a long, hard look at what things will be like 5, 10, and 30 years from now.

HORIBA employees engaged in the development, manufacture, and sale of environmental radiation monitors

KEYWORDS : Analysis and Measurement Industry | Masao Horiba Awards | Response to the Great East Japan Earthquake | Program for Making Use of Corporate Engineers | Support for Victims of Crimes | Kyoto City on its Environmental Policy

B-e-8 The HORIBA Group's Response to the Great East Japan Earthquake

Support activities

Donation and volunteer activities

HORIBA Group companies both inside and outside Japan offered donation matching programs to double the amount of relief money donated by employees in order to reach as many victims in the disaster-stricken areas as possible. In April, HORIBA also held a charity bazaar and auction. As a result, the Group donated a total of more than 40 million yen, including the proceeds from the charity mentioned above, through the Red Cross societies of the respective countries, etc.

Besides this financial support a total of 125 environmental radiation monitors have been donated to Fukushima, Miyagi, Tochigi, and Ibaraki Prefectures. In addition, individual HORIBA employees volunteered to work to support the disaster-stricken areas (e.g., by sending relief supplies or independently taking volunteer leave to participate in aid activities).

Charity bazaar held by employees

Messages of support from French children

In late March 2011, HORIBA ABX SAS (France) received messages of support intended for the disaster-stricken areas in Japan from 210 local elementary school students. These warm, cordial messages were delivered via HORIBA to elementary schools in Iwate Prefecture.

A HORIBA ABX members received messages written by French elementary school students

KEYWORDS : Analysis and Measurement Industry | Masao Horiba Awards | Response to the Great East Japan Earthquake | Program for Making Use of Corporate Engineers | Support for Victims of Crimes | Kyoto City on its Environmental Policy

B-e-8 2011 Initiatives for Dialogue with Local Communities and Society

Lectures by HORIBA Employees for Students at Maizuru National College of Technology

At Maizuru National College of Technology, as part of the engineering and design exercises for the Institute of National Colleges of Technology's program for making use of corporate engineers and other resources, some of HORIBA's employees, including alumni from the college, collaborated as lecturers to provide practical training to students.

From October 20 to December 6, HORIBA employees gave eight lectures on the flow of operations from product development to shipment at HORIBA. We hope that these lectures help students develop a clear vision of what it means to be an engineer before they enter the world of work.

Support for Victims of Crimes through a "Dream Collection Box"

We converted one of the beverage vending machines installed at HORIBA by HORIBA Community Co., Ltd., the HORIBA Group's employee welfare company, into one with a "dream collection box."

From this vending machine, ten yen per cup will be remitted to the Nippon Foundation via the vending machine operator, thereby enabling HORIBA to help National Network Victim Support, a nonprofit organization, support for victims of crimes. A portion of the money spent by employees using the vending machine will be given away as a donation to those who fall victim to unreasonable crimes and suffer injuries.

Cooperation with Kyoto City on its Environmental Policy

From June to August, HORIBA representatives attended the environmental learning seminars intended for businesses in Kyoto that were hosted by the Global Warming Measures Office of the City of Kyoto's Environmental Policy Bureau. Participating companies acquired know-how on environmental protection activities related to business operations and participated in active group discussions about how to protect the environment.

In recognition of HORIBA's active cooperation with Kyoto City on its environmental policy, the municipal government issued a document certifying HORIBA to be a business site that is promoting the development of environmental officers. Going forward, we will continue to strive to reduce environmental impact in order to fulfill our corporate social responsibilities.

KEYWORDS : Analysis and Measurement Industry | Masao Horiba Awards | Response to the Great East Japan Earthquake | Program for Making Use of Corporate Engineers | Support for Victims of Crimes | Kyoto City on its Environmental Policy

B-e-8 Regarding the Lawsuit Seeking Damages Associated with HORIBA's Past Practices that Violated the Antimonopoly Law

By May 31, 2012, 36 local governments had filed a lawsuit against HORIBA for damages associated with the company's previous violations of the Antimonopoly Law. This section explains the circumstances of this legal action.

In November 2008, together with two other companies in the industry, we were ordered by the Japan Fair Trade Commission to end practices (so-called "bid rigging") that violated the Antimonopoly Law. The Japan FTC claimed that three companies violated the law with respect to the bidding for automatic measuring instruments for constantly monitoring the air (air pollution monitoring systems), which were ordered by government and municipal offices.

Later, some of the local governments that are the users of these instruments demanded payment of damages from us and the other two companies, claiming that because of the illegal acts, they had been forced to purchase the instruments at unreasonably high prices.

These claims for damages included some that we found unacceptable in terms of the scope of the transactions covered by the claims, the calculation of damages, and so forth. As a result, we thought that some of the claimed damages were too high. For this reason, while consulting with our lawyers, we negotiated with the local governments in good faith to solve this issue, but unfortunately we were unable to reach an agreement. Under these circumstances, the local governments took legal action against us in the courts of their respective districts.

In court, we hope to clarify whether we should pay the damages claimed and whether the amounts claimed are appropriate if it is deemed that we should do so.

Regardless of the outcome, we take seriously the fact that we were previously ordered by the Japan FTC to end practices that violated the Antimonopoly Law and we are striving to prevent recurrence of similar illegal acts.

We ask for all our stakeholders understanding regarding the state of affairs described above.

KEYWORDS | Analysis and Measurement Industry | Masao Horiba Awards | Response to the Great East Japan Earthquake | Program for Making Use of Corporate Engineers | Support for Victims of Crimes | Kyoto City on its Environmental Policy

B-e-9 2011 Initiatives for the Support for the Development of Society's Next Generation (Japan)

Environmental Delivering Classes

In order to provide elementary and junior high school students with opportunities to learn about various phenomena in our daily lives, we hold environmental delivering classes, in which participants can conduct experiments using familiar materials and biodiversity seminars on the amazing sensing abilities of animals and plants. In 2011, we held 69 seminars, with a total of 2,378 participants.

Participation and Support for Events for Children

We hold various event s to provide children with opportunities to learn about the joy of science and the wonders of animals through hands-on experience using HORIBA products.

(Examples of events held in 2011)

July 10 : Science Experiment Class (Shikoku Gakuin University, Marugame City, Kagawa Prefecture)
July 28-29 : HORIBA Environmental Delivering Classes (Morikoro Park, Nagoya City, Aichi Prefecture)
August 5-6 : Kids Engineer 2011 (INTEX Osaka, Osaka City, Osaka Prefecture)
August 7 : Bikkuri! ECO 100sen-100 Surprising Ecological Topics
(Takashimaya Kyoto Department Store, Kyoto City, Kyoto Prefecture)
September 24 : Kids Engineer in Hachinohe
(Hachinohe Institute of Technology, Hachinohe City, Aomori Prefecture)
October 1 : Science World
(Ishikawa Prefecture Children Activity Center, Komatsu City, Ishikawa Prefecture)
November 5-6 : Youngsters' Science Festival
(Kyoto Municipal Science Center for Youth, Kyoto City, Kyoto Prefecture)


HORIBA Environmental Delivering Class

Kids Engineer 2011


Bikkuri! ECO 100sen

KEYWORDS : Environmental Delivering Class | Events for Children | HORIBA Challenge Tour | Africa Inspires

B-e-9 2011 Initiatives for the Support for the Development of Society's Next Generation (Overseas)

Environmental Delivering Classes at Japanese Schools in Europe

We held four classes on environmental radiation at Japanese schools in Paris, Lille, and Montpellier in France and Brussels in Belgium. About 250 students, parents and teachers participated.

An environmental delivering class at a Japanese school in Paris

HORIBA Challenge Tour 2011

HORIBA supported Kyoto Prefecture's under-13 selected soccer team in going to Germany to play games there. During their one-week stay, we invited the team members to attend a company tour and luncheon with our employees at HORIBA Europe GmbH (Germany). Members were presented with soccer balls and towels of the local soccer club in Frankfurt as souvenirs from HORIBA Europe.

Kyoto Prefecture's elite soccer team on their German tour

Support to Africa Inspires

HORIBA Instruments Ltd. (UK) is supporting "Africa Inspires," a project aimed at helping to improve the water quality in Ugandan schools. Improvement targets were created by using an HORIBA analyzer comparing the water quality between the UK and Africa. LOCOG* are also supporting this project with fund raising activities.

* London Organising Committee of the Olympic and Paralympic Games

"Africa Inspires"
http://www.africa-inspires.com/index.html

HORIBA's equipment used in water analysis in Africa

KEYWORDS : Environmental Delivering Class | Events for Children | HORIBA Challenge Tour | Africa Inspires

B-e-10 Gaiapress (1)

Gaiapress—Communication with Nature, the Environment, Life and the Unknown

HORIBA has been hosting the website, Gaiapress, since the early days of the Internet in 1996. This website presents information on a wide range of topics to promote a better understanding of nature, the environment, life and the mysteries of science. These topics provide opportunities for people to think about the value and potential of analytical and measurement technology and sensors, which play essential roles in our lives and business activities. Gaiapress is also highly sensitive to current social issues and is expanding its coverage of topics in response to readers' questions.

Based on our belief that scientific development always starts with the question "Why?" we will continue to promote communication with readers through Gaiapress.

Gaiapress
http://gaiapress.horiba.com/en/

Gaiapress has continued to expand its coverage of topics since 1996.
The total number of hits on the website was 153,435 in 2011.

KEYWORDS : Gaiapress | Website | Animal Conference on the Environment | Advertising Awards | Biodiversity

B-e-10 Gaiapress (2)

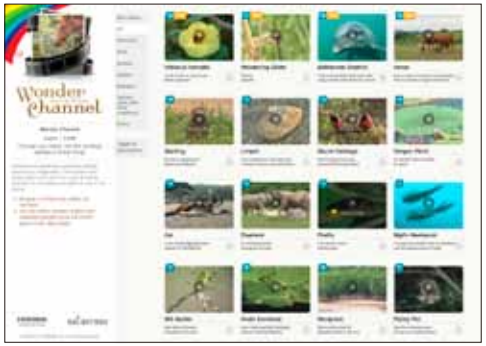
Major Web Pages of Gaiapress

Red Data Animals
～ The Ark of Gaia ～

This web page contains information on endangered species of animals that have been listed in different versions of the Red List (IUCN Red List of Threatened Animals) up until 2004, published by the International Union for Conservation of Nature and Natural Resources (IUCN). It provides us with an opportunity to focus our attention on the importance of the rich diversity of life as an invaluable asset of the world.

Wonder Channel
～ Amazing Abilities of Living Things Revealed through Images ～

The videos on these web pages highlight the amazing sensing abilities of animals, insects and plants, and enable us to appreciate the importance of feeling and measuring the existence of living things from different perspectives.



SUPER SENSORIUM

These web pages provide information on the life networks, biodiversity and capabilities of living things. Readers are also able to learn about the Convention on Biological Diversity and the Biodiversity Center of Japan.

Super Nature
～ Mystery Exploration Party ～

These web pages present many interesting mysteries in three different categories: the Mysterious World of Living Things, Communicating with the Unknown and the Mysteries of Science. Join us in as we explore unknown worlds that are the subject of scientific study.

KEYWORDS : Gaiapress | Website | Animal Conference on the Environment | Advertising Awards | Biodiversity

B-e-10 Gaiapress (3)

Earthrium What does the Earth really look like?

Earthrium began in March 2006 on the Internet as a joint project between HORIBA, Ltd. and the Think the Earth Project team. This website provides views of planet Earth from different perspectives using computer-generated terrestrial globes.

How does global warming occur? What did the Earth look like three billion years ago? In what countries is English spoken? What does an aurora look like when viewed from space? Which parts of the Earth were inhabited by tyrannosaurs?

Rotate the globe on your screen to reveal new and exciting information about planet Earth.

SENSORIUM

This web page explains the mysteries behind measurement technology through Omoshiro Bunseki Zukan (Analysis with Amusing Illustrations) and Bunsekigaku Nyumon (Introduction to Analysis). We also answer readers' questions about analytical and measurement technology.

KEYWORDS : Gaiapress | Website | Animal Conference on the Environment | Advertising Awards | Biodiversity

B-e-10 TV Animation of the Animal Conference on the Environment

HORIBA has supported the Animal Conference on the Environment, which has gained recognition worldwide, since it became Official Partner.

Animal Conference on the Environment began in 1997 on Gaiapress, a website hosted by HORIBA, to coincide with the Third Session of the Conference of the Parties (COP3) held in Kyoto. HORIBA has continued to participate in the running of the Animal Conference as official program partner, even though it is now managed independently.

This website is designed to teach children the joy of thinking by providing opportunities for them to consider environmental issues in a fun and enjoyable manner with the help of unique animal characters gathered from around the world. The stories posted on the website have also been published as four picture books and translated into different languages including South Korean and Taiwanese. In South Korea they are used as supplementary readers in elementary schools, and are gaining widespread popularity in other countries as well. The program has received recognition in various arenas: in 2008 it was chosen for an affiliated event at the Tokyo International Film Festival; and in 2009 it was invited to participate in the Forum International Cinéma & Littérature in Monaco, where it received international acclaim by animated film makers in Europe. Between March and October in 2010, which was declared by the United Nations as the International Biodiversity Year, 20 episodes were broadcast in Japan of an animated series entitled “The Animal Conference on the Environment” (NHK Educational Channel), based on the stories told on our website.

As official partner of the Animal Conference on the Environment, HORIBA will continue to create opportunities for children to experience the joy of thinking.

The Animal Conference on the Environment official website:
http://zomama.jp/

Various animal characters representing different countries around the world

KEYWORDS : Gaiapress | Website | Animal Conference on the Environment | Advertising Awards | Biodiversity

B-e-10 Grand Prize at the 2011 Japan B to B Advertising Awards

At the 32nd Japan B to B Advertising Awards in 2011, hosted by the B to B Advertising Association Japan, HORIBA received awards in three categories. A 2011 HORIBA calendar won the gold prize in the calendar category. The company's "ABIROH 2011" catalog won the silver prize in the corporate catalogue category. In the website category, HORIBA's website received the bronze prize for "HORIBA connexion: An Exhibition Linked to Social Media" (part of JAIMA EXPO 2010).

Silver Prize Winner in the Business Catalogue Category
Catalogue title: "abiroh 2011"

Analysis enables one to see what one cannot usually see, feel what one cannot usually feel, and perceive what one cannot usually perceive. The message of HORIBA intends to excite people using unique information that no one usually notices.

Gold prize winner in the calendar category
Calendar title: An Emissary of the Sun
Advertising company: HORIBA, Ltd.
Planned and produced by: L'union Publications, Inc./Kousakusha

Today, though it may seem that the earth revolves around humanity, in reality there are diverse, tough organisms coexisting on earth which maintain a balance with the environment. This calendar was made with a feeling of veneration for life beyond human beings.

Website category
Website title: HORIBA connexion: An Exhibition Linked to Social Media
http://www.jp.horiba.com/connexion/

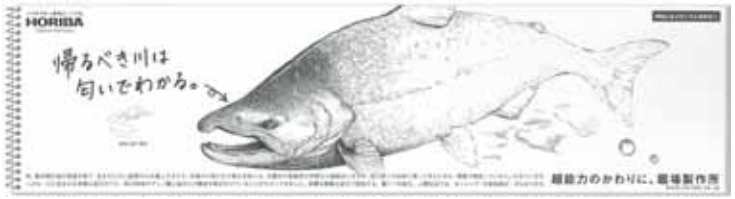
HORIBA introduced social media on its website for JAIMA EXPO 2010, one of the major exhibitions in which it participates, before any other exhibitor. Its JAIMA Expo 2010-linked website, which was designed to arouse interest in the event in order to pique the curiosity of viewers to visit the exhibition site even before the exhibition began, even enabled those unable to visit the site to enjoy the event.

KEYWORDS : Gaiapress | Website | Animal Conference on the Environment | Advertising Awards | Biodiversity

B-e-10 Runner-up in the 38th Nikkei Business Daily Advertising Awards

One of HORIBA's advertisement series was awarded the runner-up award in the Material, Industrial Equipment and Service Category in the Nikkei Business Daily Advertising Awards, the largest advertising awards in Japan. This is the fifth consecutive time HORIBA has received this award. We will continue to strive to communicate our unique messages to society.

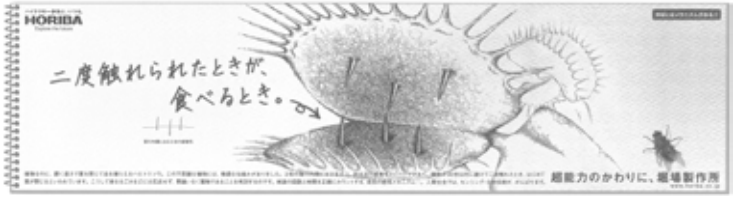
HORIBA's corporate advertisement, entitled "HORIBA, Ltd. believes that mystery has a mechanism-one that is not supernatural in nature," was published in the Nikkei Sangyo Shimbun from November 2010 to September 2011.



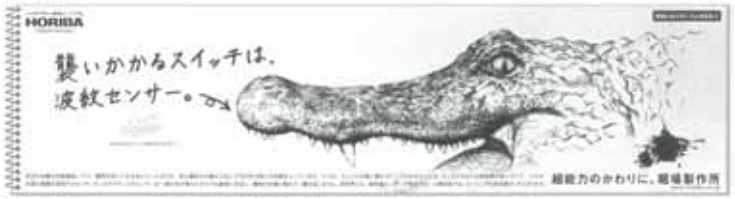
Published November 29, 2010

Published January 26, 2011

Published March 28, 2011



Published May 26, 2011



Published July 25, 2011

Published September 26, 2011

KEYWORDS : Gaiapress | Website | Animal Conference on the Environment | Advertising Awards | Biodiversity

B-e-10 Policies and Achievements Regarding Biodiversity Activities

Based on the HORIBA Group CSR Policies, we at HORIBA are conducting corporate activities using "energy," "health," "the environment" and "safety" as keywords. As part of our corporate responsibility, we have formulated the following HORIBA Biodiversity Activity Policies:

HORIBA Biodiversity Activity Policies

1. Contribute to biodiversity through our analysis and measurement technologies
2. Send messages about the importance of biodiversity to society
3. Take an active part in working with related local organizations

Achievements Regarding Biodiversity-related Activities

1. Presented information on endangered species on the HORIBA calendar
2. Presented articles related to biodiversity on the HORIBA's official website
3. Lectured on the sensors of animals and plants in on-site seminars (Kids Engineer 2011, etc.)

Kids Engineer 2011 in Hachinohe

KEYWORDS : Gaiapress | Website | Animal Conference on the Environment | Advertising Awards | Biodiversity

B-e-10 Gaiareport: Self-assessment

Based on the Guide for Self-assessment to Increase the Reliability of an Environmental Report (Ministry of the Environment), HORIBA requested the Group Internal Audit Office to conduct a self-assessment of the data provided in Gaiareport 2012 (brochure and Web versions) and the system used to aggregate the data. We disclose the self-assessment results to stakeholders in this report. We will continue to make improvements through the effective use of self-assessments based on the guidelines provided by the Ministry of the Environment.

[Report on the Results of Our Self-assessment]

We undertook a self-assessment of Gaiareport 2012 (brochure / website), HORIBA's CSR Report.

1. **Individual undertaking the self-assessment**

   Name/title: Masahiro Nakai, Chief Manager
   Affiliation: Group Internal Audit Office

2. **Date**

   April 17, 2012

3. **Procedural details**

   We prepared this report according to the list of items presented in the Guide for Self-assessment to Increase the Reliability of an Environmental Report published by the Ministry of the Environment.

4. **Assessment objective**

   The target items of the self-assessment are the 29 items listed in the fiscal 2007 edition of the Environmental Reporting Guidelines.

5. **Result of assessment**

   We implemented the self-assessment procedures for the target items to be assessed and found no items of concern.

Masahiro Nakai
Chief Manager, Group Internal Audit Office
HORIBA, Ltd.
April 17, 2012

KEYWORDS : Self-assessment | Guidelines

B-e-10 Self-assessment—The 29 Items Listed in the Environmental Reporting Guidelines (2007 Version)

1. Basic Information

- BI-1 CEO's statement
- BI-2 Fundamental requirements of reporting
- BI-3 Summary of the organization's business (including management indices)
- BI-4 Outline of environmental reporting
- BI-5 Material balance of organizational activities

2. Status of Environmental Management

- MP-1 Status of environmental management
- MP-2 Status of compliance with environmental regulations
- MP-3 Environmental accounting information
- MP-4 Status of environmentally conscious investment or financing
- MP-5 Status of supply chain management for environmental conservation
- MP-6 Status of green purchasing or procurement
- MP-7 Status of research and development of new environmental technologies and DfE
- MP-8 Status of environmentally friendly transportation
- MP-9 Status of biodiversity conservation and sustainable use of biological resources
- MP-10 Status of environmental communication
- MP-11 Status of social contribution related to environment
- MP-12 Status of products and services that contribute to the reduction of negative environmental impacts

3. Status of Activities for Environmental Impacts and Reduction Measures

- OP-1 Total amount of energy input and reduction measures
- OP-2 Total amount of material input and reduction measures
- OP-3 Amount of water input and reduction measures
- OP-4 Amount of materials recycled within an organization's operational area
- OP-5 Total amount of manufactured products or sales
- OP-6 Amount of greenhouse gas emissions and reduction measures
- OP-7 Air pollution, its environmental impacts on the living environment, and reduction measures
- OP-8 Amount of release and transfer of chemical substances and reduction measures
- OP-9 Total amount of waste generation and final disposal and reduction measures
- OP-10 Total amount of water discharge and reduction measures

4. Status of the Relationship between Environmental Considerations and Management

5. Status of Social Initiatives

KEYWORDS : Self-assessment | Guidelines