

Initiatives for the Environment

E Environment	Environmental issues	Approach of MinebeaMitsumi
	Global warming	<ul style="list-style-type: none"> ● Creating environmentally friendly products
	Resource depletion	<ul style="list-style-type: none"> ● Prevention of global warming
	Natural disasters	<ul style="list-style-type: none"> ● Effective use of resources ● Reduction of the use of substances having an environmental impact



Environmental highlight (fiscal year ended March, 2018)

Percentage of major production facilities with ISO 14001 certification 100%	CO ₂ emissions (per basic unit of output) 8% reduction (Year on year)	Recycling rate of generated waste 98% or more	Waste sent to landfills Substantial reduction
Plants with zero plant wastewater 5 plants	Use of service water Substantial reduction (Year on year)	Emergency preparedness Plants implementing training for oil and chemical leaks All plants	Activities to protect biodiversity Mangrove trees planted by CEBU MITSUMI employees 14,000 trees (As of July 2017)

Business opportunities related to the environment

Creating environmentally friendly products

Basic approach

The MinebeaMitsumi Group's basic CSR policy is to work toward stable supply of highly reliable products with low energy consumption and make them widely available in order to contribute to the sustainable improvement of the global environment and the sustainable development of humanity.

Items (components) supplied by the Group are used in a variety of end products, which is precisely why it is vital to take into account to the environmental impact throughout the entire life cycle, through such characteristics as energy saving, reduced use of resources, and long product life.

● High-precision and high-quality ball bearings

MinebeaMitsumi's high-precision and high-quality ball bearings are used in a wide range of products essential to our daily lives, such as household electrical appliances, information and telecommunications equipment and automobiles. By helping to ensure such products have greater precision, better energy saving, higher resource

efficiency and longer product life, our ball bearings contribute to the environment in a variety of ways.

● Power brushless motors

These motors are used in the drive mechanisms of household electrical appliances and of office automation equipment such as multi-function copier-printers and printers. In office automation equipment applications, custom ICs enable precise control that in turn allows high efficiency and low power consumption. In household electrical appliance applications, we have developed models incorporating microcomputers, which contribute to improved performance of such appliances by enhancing functionality and making them quieter as a result of implementing low-noise algorithms.

Particularly for products, such as fans, that previously used AC motors, converting to our DC motors can result in reductions in power consumption of 50% at high speeds and 90% at low speeds.



Countermeasures for environmental risks

Preventing global warming

Basic approach

The MinebeaMitsumi Group recognizes that the international issue of global warming, along with the related issues of soaring energy prices and abnormal climatic conditions, pose a significant threat to the continuation of its business activities.

In response, each office and plant in the Group is proactively promoting energy saving initiatives in order to prevent global warming.

● Energy saving initiatives of our plants

At MinebeaMitsumi plants both in Japan and overseas, we are actively introducing technologies with superior energy saving performance, such as high-efficiency centrifugal chiller for air conditioning, inverter-type air compressors and LED lighting. In addition, we are implementing initiatives to comprehensively improve energy saving performance at plants, such as by treating the roofs and external walls of plants with thermal-barrier coatings, and using waste heat recovery techniques and CO₂ sensors to control the intake of external air.



Centrifugal chiller installed in the Xicen Plant, China

Effective use of resources

Basic approach

The Group recognizes that there are limits to the availability of resources used in its products, which include metals, plastics, and other raw materials, along with oil, natural gas, and other energy sources. Water is another precious global resource that is vital to life and our production activities.

We believe that the effective use of resources is critical to the continuation of our business activities, and to that end we are taking various measures.

● Effective use of rain and river water (Thailand)

In Thailand, our plants collect rainwater in a reservoir on the plant grounds and purify it at rainwater reuse facilities, and reuse it as industrial water. In addition, one of the Thai plants started to draw water from the nearby Chiang Rak Noi Canal and purify it to use as an alternative to tap water. Through doing this, the plant has reduced both its tap water consumption and its water related costs.

● Recycling of vials and other materials (domestic logistics warehouses)

Since the fiscal year ended March 2009, the Group has been recycling stretch films, polypropylene bands and polyethylene containers (vials) for packaging products delivered to customers, as a valuable resource. In order to make effective use of limited resources, we will continue to promote the recycling of materials going forward.

Reduction of the use of substances having an environmental impact

Basic approach

Wastewater and atmospheric emissions from plants can be a source of water, soil, and air pollution that poses a threat to local communities. At the Group, we believe that harmony with local communities is indispensable to our business activities, and as such, we are striving to reduce the use of substances having an environmental impact.

● Plant wastewater purification

Prior to releasing wastewater into rivers, the Group plants use their own treatment facilities to purify wastewater to within fixed environmental standards. These plants adhere to environmental laws and regulations of the countries and localities in which they operate, and independently monitor the composition of such wastewater discharges regularly.



Fujisawa Plant's wastewater treatment facility

● Implementation of environmental patrols at overseas plants

At the Group, members of the Group Environment Management Department in Japan regularly visit overseas plants to implement environmental patrols together with members of the local environment management departments.



Hazardous material warehouse at the Lop Buri Plant in Thailand, 2017

● Inspection of waste disposal sites (Japan, Thailand, China, etc.)

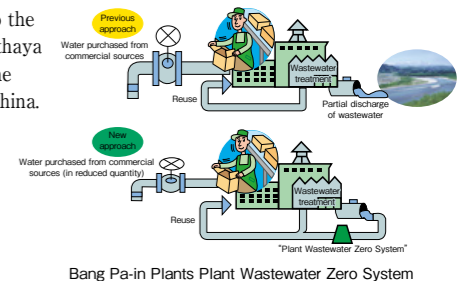
At each plant and office, there are types of waste which are difficult to reuse or recycle on-site. In these cases, the waste is disposed of through third-party waste disposal companies.

The Group selects reliable waste disposal companies, contracts them to dispose of said waste, and conducts regular inspections of their disposal sites to confirm the status of waste disposal and management. We will continue to cooperate with waste disposal companies to ensure that their waste disposal processes do not generate soil, water, air, and other pollution.

● Operation of Plant Wastewater Zero System (Thailand and China)

The Group operates plants which use large amounts of water in the processing of manufactured products and take measures to reduce discharges of wastewater. Our plants purify used water to reduce the level of waste to below standards required by environmental laws and regulations of each country and locality, before releasing the water into the environment. Despite these measures, we cannot guarantee that the released water has zero impact on the surrounding environment. At our plants in Thailand and China, which use large amounts of water, we have adopted the Plant Wastewater Zero System to reduce the wastewater to be released and its impact on the environment to as close to zero as possible.

This system is introduced to the Bang Pa-in, Lop Buri and Ayutthaya Plants in Thailand, as well as the Shanghai and Xicen Plants in China.



Bang Pa-in Plants Plant Wastewater Zero System