

Environmental Activities at the Yattajima Plant

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In 1973, the Yattajima Plant began operations as a compressor factory, and in 1977, the construction of production lines boasting world-class automation and laborsaving technologies was completed. This comprehensive center for the development and design of new products, production, service, and distribution offers outstanding technological capabilities and reliability that has won acclaim from automobile manufacturers worldwide.

The Yattajima Plant's compressor factory has an annual production capacity of 5.4 million and handles the design, development, production, and distribution of compressors. Throughout these processes, efforts are made to conserve energy and resources and develop eco-products for customers around the globe.

At the Yattajima Plant's car air conditioner factory, development and production departments work together to develop a wide range of products for various types of vehicles—from passenger vehicles to trucks and special purpose vehicles. The Plant is rapidly creating products to meet the needs arising from manufacturers' diversification of passenger vehicle models.



Plant Overview

Total site area: 82,000m²
 Building floor area: 60,000 m²
 Products manufactured: Automotive air conditioner compressors, automotive air conditioner systems
 Number of employees: 1,050
 Location: 350 Yattajima-cho, Isesaki-shi, Gunma, Japan
 ISO certification: July 1997

Zero Emissions

*Sale of Recycling Containers to Outside Companies

In 1997, we began using recycling containers for waste. In addition, based on the know-how that we gained through the process of achieving zero emissions, we are promoting use of these containers at Group plants and affiliates and even selling them to outside companies, and these recycling containers have proved popular.

*Recycling Label Storage Area

Since 1997, we have set up an area within the Company with plastic containers specifically for recycling label storage. Recycling labels are written in English so that overseas customers can more easily understand plants' recycling activities. In line with our pro-environment stance, we are using approximately 40 different labels covering everything from plastic to paper products as a tool to achieve zero emissions not only at Sanden but also at domestic and overseas affiliates. Overseas, these labels have been a great help in making the separation process smoother.



Energy Conservation

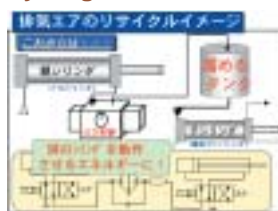
At the Yattajima Plant, energy conservation activities are being carried out based on the following key words: gather, fix, change, separate, decide, and stop.

Air recycling is an example of an energy saving achievement based on the concept "gather." The air remaining in air cylinders used to move equipment after the cylinder stops operating used to be released into the atmosphere as exhaust. We came upon the idea of gathering this wasted air for reuse, achieving an annual reduction of 1,208m³ in air consumption volume by collecting this air and using it to move other cylinders.

Recycling of Exhaust Air



Depiction of Exhaust Air Recycling



Yattajima Plant's Environmental Impact (Water quality)

Regulated item	Unit	Regulated value according to prefectural/city ordinances	Actual measurement
pH	-	5.8 - 8.6	7.2
BOD	mg/L	25	2.3
COD	mg/L	25	4
SS	mg/L	50	3
n-hexane	mg/L	5	<1
Total nitrogen	mg/L	120	6.5
Organic phosphorus	mg/L	-	<0.1
Total phosphorus	mg/L	16	0.047
E.coli bacteria	Number/cm ²	3000	<123
Dichloromethane	mg/L	-	0.002

(Air: Boiler)

Regulated item	Unit	Regulated value according to prefectural/city ordinances	Actual measurement
Sulfur oxide	Nm ³ /h	(15.7)	<0.0038
Particulate density	g/Nm ³	0.3	<0.025
Nitrogen oxide	mg/L	180	87

Notes:
 1. Prefectural ordinances refer to regulations enforced by Gunma Prefecture to preserve the living environment (JSE).
 2. BOD refers to biochemical oxygen demand
 3. COD refers to chemical oxygen demand
 4. SS refers to the volume of suspended solids
 5. Sulfur oxide regulations refer to k value regulations