

Address	285 Jalan Ahmad Ibrahim Singapore 639931			
Lot area	25176m <sup>2</sup>	Total floor area	24970m <sup>2</sup>	
Establishment day	1978/12	Employees	316persons	
ISO14001certification date	1997/12	ISO14001renewed	2008/12	
Major Products	AI machines, SMT machines, RSD FA sales & services, Parts Making, CIM svstems & softwares			
Environmental Information disclosure	CommunicationFY2009 4items	visitors on factory tour	20persons	
Contact	Corporate Management Centre		TEL: 65-68616655	

**Message from Compliance Administrator**

Panasonic Factory Solutions Singapore is now known as Panasonic Factory Solutions Asia Pacific Pte. Ltd. (PFSAP) with effect from 1st April 2008. Committed by our corporate environmental policy, PFSAP aims to firstly ensure that our on-going business activities, products and services comply with the existing environmental legislation and regulations, as well as the requirements of our headquarters in Japan. Secondly, PFSAP will also strive to establish and achieve its environmental objectives and targets set with the intention to enhance its environmental performance for continuous improvements. With global warming becoming increasingly significant in today's context of fast-moving industrialization, PFSAP will continue to pursue and make consistent effort to reduce CO2 emissions and prevent global warming. PFSAP has been certified to ISO14001 since 1997 and implemented suppliers' auditing in 2008 as part of our green procurement and RoHS activities.



Compliance Administrators  
**Hideki Baba**

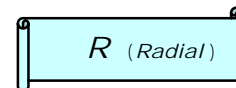
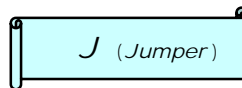
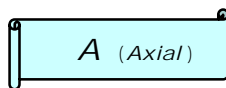


**Main activities in FY2009**

Target	Result
To achieve Business Plan achievement rate 100% for Energy	Overall Energy BP achievement rate by PFSAP = 107.68% (Total energy consumption for FY2009 = 6,202,000 kWh)
To achieve Water reduction rate of 2.5% vs. FY2008 (LY) (water saved in FY2009 / total water used in FY2008 x 100)	Overall Water reduction rate achieved by PFSAP = 2.10% (Total water consumption for FY2009 = 23,105 cu.m)
To achieve Waste reduction rate of 3.0% vs. FY2008 (LY) (waste reduced in FY2009 / total waste amt in FY2008 x 100)	Overall Waste reduction rate achieved by PFSAP = 3.47% (Total waste generation for FY2009 = 130.4 ton)

**Products of Environmentally-conscious information**

**Single-Common Platform for Auto Insertion (AI)**



**Green Product Development in FY2008: Single-Common Platform**

After achieving the AVK3 (NM-AA30) as a milestone in Green Product (GP) development in FY2007, PFSAP has created another significant development in green product under the R&D project by introducing a single-common platform for all auto insertion machines (axial, jumper and radial models) in FY2008. The first new AI model machine, AV131 (common platform) was ex-factory on 26 March 2008. Environmental benefits of having a common machine platform will help to optimize material resources and thereby reduces material wastage in the form of standardization.

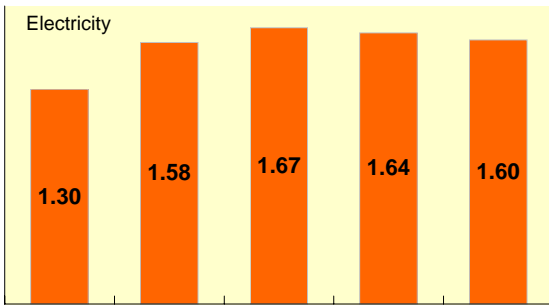
[-> link to a product information web-site.](#)

**Environmental performance data**

Year displayed in graph ex) 2009: April 1, 2008 - March 31, 2009

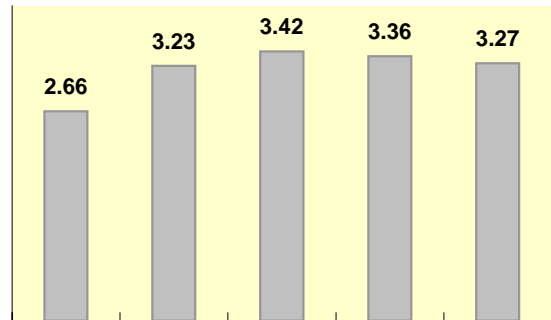
**Energy**

Unit: 1000kl



**CO2 Emission**

Unit: 1000t-CO2



Natural Energy

FY2009

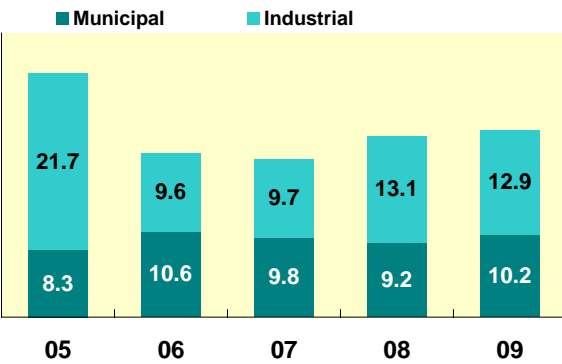
0.00 1000kWh

**Calculation standards**

Numerical values for respective countries listed on the Calculation Tools in GHG Protocol website by World Business Council for Sustainable Development (WBCSD) and World Resource Institute (WRI). Levels for 2002 (Electricity-Heat Steam Purchase\_tool1.0\_final) has been used for all years.

**Water**

Unit: 1000m<sup>3</sup>



Circulated water

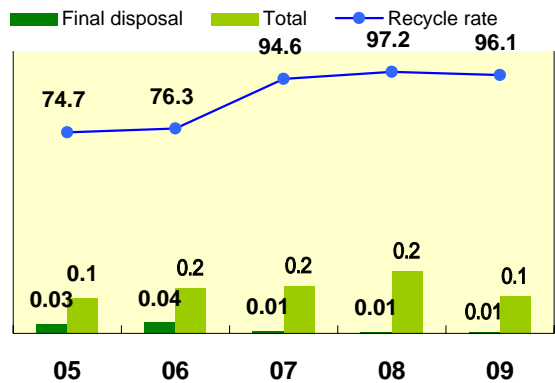
Rain-water

FY2009

0.00 m<sup>3</sup> 0.00 m<sup>3</sup>

**Waste**

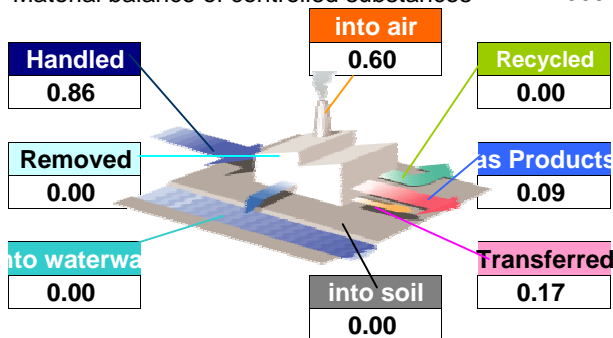
Unit: 1000t, %



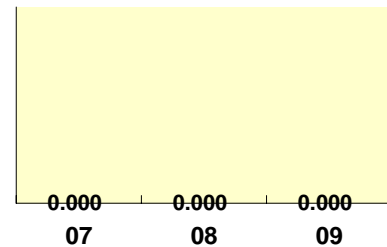
**Chemical substances**

09

Material balance of controlled substances FY2009



**Key target reduction substances**



About The Panasonic Group's Chemical Substances Management in Factories

[http://panasonic.net/eco/factory/chemical\\_substance/](http://panasonic.net/eco/factory/chemical_substance/)

About the above data

## Compliance

FY2009

## &lt;Air pollutant measurement results&gt;

	Unit	Facility name	Legal limit	Voluntary limit	Average measured	Maximum measured	Measuring frequency
SOx	Nm <sup>3</sup> /h	NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
NOx	ppm	NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
Particulate	g/Nm <sup>3</sup>	Precision Room	0.00	0.00	0.00	0.00	Once every 3 years
		Grinding Room	0.00	0.00	0.00	0.00	Once every 3 years
		NA	0.00	0.00	0.00	0.00	NA

## &lt;Water pollutant measurement results&gt;

	Unit	Facility name	Legal limit	Voluntary limit	Average measured	Maximum measured	Measuring frequency
COD	mg/l	Final Wastewater Di	0.00	0.00	0.00	0.00	Once every 3 years
		NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
BOD	mg/l	Final Wastewater Di	0.00	0.00	0.00	0.00	Once every 3 years
		NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
Nitrogen	mg/l	NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
Phosphorus	mg/l	NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA
		NA	0.00	0.00	0.00	0.00	NA

## &lt;Noise and vibration&gt;

	Unit	Measurement Area	Legal limit	Voluntary limit	Average measured	Maximum measured	Measuring frequency
Noise	dB	DT Grinding, Milling	0.00	0.00	0.00	0.00	Once every 3 years
		NT NA	0.00	0.00	0.00	0.00	NA
Vibration	dB	DT NA	0.00	0.00	0.00	0.00	NA
		NT NA	0.00	0.00	0.00	0.00	NA

\*Legal limit: The strictest value out of those specified by laws, ordinances or agreements.

\*N/A(not applicable):The meaning when the facility is exempted from the regulation.

## About excess of legal limit value

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## Improvement of direction by government, or point outs by neighbor

Occurrence situation	Countermeasure
There is no item to report.	

## Environmental Policy

**PFSAP Environmental Policy**eco  
ideas

We are aware of our responsibility as a one-stop JISSO solution provider. PFSAP is fully committed and pledged to promote environmental protection activities and awareness among employees involving them to continuously work towards implementing measures to improve the environmental performance.

In implementing this policy, we are committed to:

1. Ensure our activities, products and services comply with the environmental legislation and regulations and the requirements of Panasonic Corporation, Japan.
2. Establish and achieve our environmental objectives and targets.
3. Formulate and review environmental procedures to ensure effective support of the environmental management system.
4. Promote actively and ensure prudent use of materials such as oil, coolant and utilities so as to prevent pollution and minimise wastage.
5. Communicate our Environmental Policy to our employees, sub-contractors and suppliers and make it available to the public.

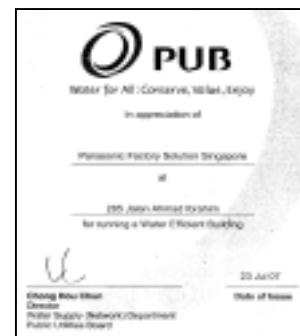
**Dated: 1<sup>st</sup> April 2009**

**Environmental Awards for PFSAP**eco  
ideas

**ISO 14001 Certification  
Award by PSB TUV**



**Clean Factory Award  
by Matsushita HQ, Japan**



**Water Efficient Building Award  
by Public utilities Board,**

**Aiming to reduction of environmental impact**



Installed intelligent controllers for air con packaged units



Replaced conventional emergency exit signs to self-luminous type



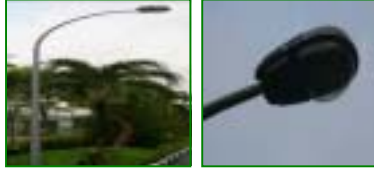
Arrested all compressed air pipe coupling leakages



Conducted lighting study to analyse and reduce excessive lux



Implemented motion sensors for common staircases, walkways and reception lobby



Reduced daily operation timings for company's internal street lightings



Cut down on daily air con operation timings



Converted cooling tower water pumping system to direct

**Environmental Communication**



**Tree Planting 2008 by Panasonic Group Singapore**

Organized by the Panasonic Singapore Environmental Management Committee (PSEMC) with support from National Parks Board, PFSAP participated together with the Singapore Panasonic group for a tree planting activity at Sengkang Riverside Park on 2<sup>nd</sup> November 2008. The event was also attended by Guest of Honor, Mr. Lee Hsien Loong (Prime Minister). Over 500 employees and family members and about 1,200 local residents from the community participated in planting 200 trees at the park. It was a rewarding experience for all the participants to do our part for the environment and spread the



**Quality-Environment-Safety Month 2008**

In conjunction with the National Clean & Green Week the annual QES Month campaign for PFSAP was organized in November 2008. The campaign lasted for 1 month. Main promotional activities included environmental exhibits, on-line quiz, contest and outings to Southern Ridges nature walk and visit to NeWater plant



**Emergency preparedness and response**



**Fire & Emergency Exercise**

A company-wide fire emergency and evacuation drill was carried out on 17<sup>th</sup> December 2008 for all employees and guests who were present at the time of the surprise activation. Headcounting process was performed and attendance was reported to the evacuation officers in-charge. The workplace safety & health officer also conducted an exercise debrief to all safety



**Blood Donation Campaign**

A blood donation campaign and education tour was conducted on 28<sup>th</sup> November 2008 for company employees who wished to donate blood for lives saving mission. Participants also have the opportunity to experience a tour of the Blood Bank at HSA for a better understanding of its operations. All donors were

