



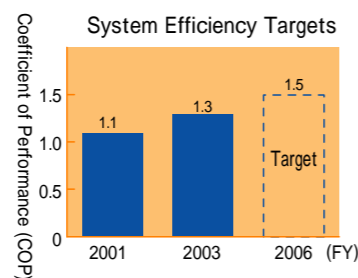
Improving the Environment Friendliness of Life & Energy Related Products

Aisin is active in developing life & energy related products that are of immediate use in people's daily lives. Our theme for those products is "Lifestyle and Health", and as part of this we have developed products such as beds, shower-toilet seats and sewing machines, gas engine driven heat-pump air conditioners and gas engine driven cogeneration systems. We aim to develop products that are kind to both people and the earth.

Prevention of air pollution and global warming

[Improved Efficiency GHP (Gas Engine Driven Heat-Pump Air Conditioner)]

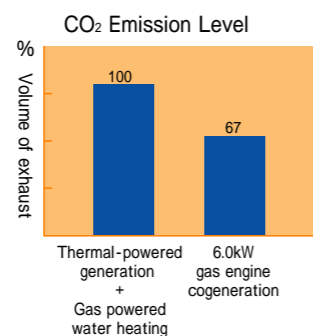
GHP efficiency is being improved through our program of technical developments, so as to meet the target COP (Coefficient of Performance) = 1.5 by FY2006. During FY2003, we have incorporated a bypass pipe that runs from the compressor to the accumulator, and have reduced the amount of compression required to the minimum possible, in order to fit the operating capacity of an internal unit. We have also incorporated structural technology that has reduced the engine load, achieving COP=1.3, as well as changed over to a coolant (R407C) in all models that is not damaging to the ozone layer.



Gas engine driven heat-pump air conditioner

[Gas Engine Driven Cogeneration System Sales]

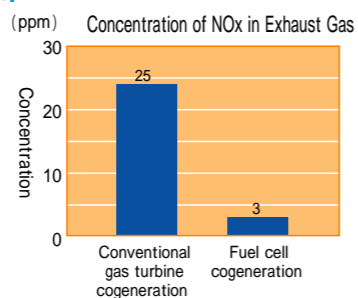
Aisin put on sale a gas engine driven cogeneration system with an output capability in the 6.0kW class, based on highly reliable gas engine technology. This system can supply both hot water and electricity, and has an extremely high overall efficiency of 86%. Its CO₂ emissions are roughly 30% less than conventional thermal powered electric or gas hot water equipment. This reduction represents a contribution to the prevention of global warming. At the same time, the reduction in fuel consumption aims to offer a potential saving in energy costs for our customers.



Gas engine driven cogeneration system

[Fuel Cell Cogeneration Development]

Aisin and Toyota Motor Corporation are jointly developing a fuel cell cogeneration system, which produces hydrogen using city gas, and then uses this hydrogen, along with oxygen, to generate electricity in an electrochemical reaction. The production of hydrogen from city gas involves very slight emissions of NO_x, but in comparison with other systems, it has significant potential, both for clean emissions, and for efficient electricity generation. Aisin and Toyota are working on improving the durability of the system, in order to enable the widespread use of this extremely environmentally friendly cogeneration system in the future.



Fuel cell cogeneration system

[Energy-saving Shower-toilet Seats]

Aisin developed an energy-saving device for shower-toilet seats in 1998, which automatically detects when nobody is using the facility, and closes the toilet lid, saving electricity when the toilet is not being used. This has been fitted to the high-class CW-J series. Subsequently the device was further developed, so that the CW-A model allows the user to close the toilet lid manually to switch the toilet into energy saving mode. The CW-A function was incorporated into our largest-selling device range, the CW1000 series, during FY 2001. During FY 2002, the CW1000 series underwent a full model change, and the higher-priced models had the automatic sensor added which detects when no one is present and closes the lid automatically, moving the toilet into energy-saving mode. Our lower-priced models in the CW-H series were also fitted with an energy-saving timer device that allows a specific time to be programmed, at which the machine will switch over to energy-saving mode every day. This means that all our shower toilets now include some type of energy-saving function.

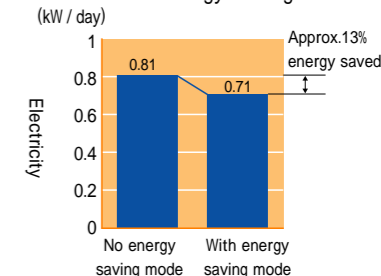
Development of the energy saving series

| FY | 1999 | 2000 | 2001 | 2002 |
|--------|-----------------------------------|-----------------------------------|--------------------------------------|---------------|
| Model | | | | |
| CW-J | June 1998 Super Electricity Saver | | | |
| CW-A | | June 1999 Super Electricity Saver | | |
| CW1000 | | | March 2000 Super Electricity Saver | |
| CW-H | | | January 2001 Timer Electricity Saver | November 1999 |



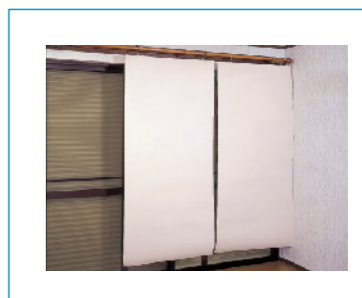
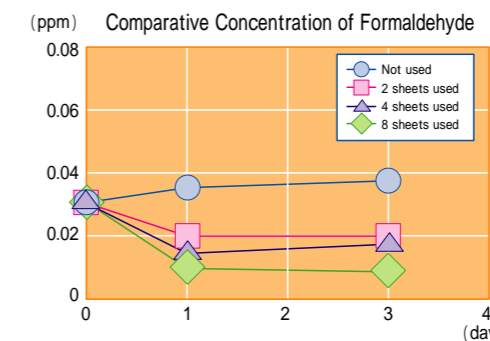
CW-H Series

CW-H Series Energy Savings



[Sale of Formaldehyde Absorption/ Breakdown Sheets]

In the past few years, many cases of chemical-substance hypersensitivity, one of the causes of "sick house syndrome," have been reported by people living in newly built or refurbished homes. This is caused by formaldehyde and other volatile organic compounds which are included in the adhesive on wallpapers and in various other building materials and furnishings, and which are released into the air



"Formaldehyde Absorption/ Breakdown Sheet"

with the potential to cause sore throats and eyes among people living in the house. Aisin has developed a "Formaldehyde Absorption/ Breakdown Sheet," which deals with this problem of chemical-substance hypersensitivity, and which is on sale currently. The Formaldehyde Absorption/ Breakdown Sheet is made from a combination of the natural mineral ore sepiolite and amino acids, mixed with ordinary pulp to give a paper sheet of 0.2mm thickness. The development of this sheet has made it possible to reduce the concentrations of formaldehyde in residential spaces.