

Building miniature production lines involves considering the operability of each process as well as the timing coordination over the entire line and so forth. This resulted in various innovations such as reducing the weight of moving parts. Looking ahead, we will develop engineers who will take a birds-eye-view of the entire line and apply their own skills to designing energy-saving, high efficiency facilities.



Miniature line for the high performance caliper manufacturing facility produced in fiscal 2017 and production team members

Associates in charge of truck operation management use the data to give timely instructions to each driver so that they can avoid crowded routes and helps to ensure that drivers are taking breaks as needed. In these ways, Akebono is ensuring safe and environment-friendly truck operations. In addition, the system also enables objective determination and ranking of drivers' eco-driving by recording data about idling time and sudden acceleration and braking. Through measures such as these, the system can be used to increase motivation for eco-driving and safe driving. Akebono will continue working to save energy and rationalize its distribution operations, ensuring safety while protecting the environment.

Through various efficiency improvement activities, Akebono is helping to improve associate productivity, and lower transportation costs by reducing energy resources.



Alocs Corporation's control screen that gives driving instructions based on real-time truck position and traffic information

**E** Initiatives to Reduce Environmental Impact- 4

## Initiatives in Logistics



**Akebono promotes energy saving and rationalization in its distribution operations through the truck operation dynamic management system.**

### Initiatives in Eco-Friendly Driving

The Akebono Group member Alocs Corporation (a logistics solution company) is employing a truck operation dynamic management system. The system utilizes data on individual vehicles gleaned from onboard sensors, such as engine speed, driving speed, acceleration rate and location. This data is automatically transmitted to the headquarters.



Truck from Alocs Corporation headquarters

### Received Honorable Mention for the Cogeneration Grand Prize

In February 2018, at the Cogeneration Grand Prize 2017 sponsored by the Cogeneration Foundation (Advanced Cogeneration and Energy Utilization Center Japan), Akebono received an Honorable Mention (in the Industry Category) for "Improving efficiency and reducing greenhouse gas emissions through cogeneration systems".

Since the introduction of cogeneration in 2011, Akebono has been building systems to reduce CO<sub>2</sub> emissions by improving overall efficiency with the goal of daily capacity utilization, cutting electric power supply to the outside during peak hours, contributing to the electric power business by combining the introduction of advanced equipment that utilizes waste heat with renewable energy, as well as consistently raising gas engine power generation

efficiency and improving waste heat utilization efficiency.

Akebono also received the Excellence Award at the Cogeneration Grand Prize 2013, this time receiving its second award. To fulfill its corporate social responsibility, Akebono views global environmental problems as one of its most important management challenges and is working more comprehensively on environmental conservation activities from a global perspective.

