

## Hi-OSS processes everything on site (Hitachi On-site Screening & Solution)

# Evolving together with our customers, Hi-OSS reduces CO<sub>2</sub> emissions with on-site processing



We have learned a lot about the environment while our customers have been using Hi-OSS at various work sites. To share what we have learned, we have set up a demonstration site to display the effectiveness of Hi-OSS and we publish our magazine "The Earth".

### Hi-OSS sorts, processes and recycles waste on site

Hi-OSS stands for "Hitachi On-Site Screening and Solution". The total solution, which integrates machines (mobile screens, crushers, etc.), sorts, processes and recycles soil and waste generated at construction sites. Hi-OSS can be customized, moved and expanded according to the conditions and purpose of the construction site by making use of the mobility of the machinery. So Hi-OSS can be used for all sorts of sites, not just civil engineering and construction sites, but also sites used for agriculture, forestry, livestock farming, stone crushing, and illegal dumping sites. Hi-OSS significantly cuts CO<sub>2</sub> emissions by reducing the work of transferring waste in dump trucks, and work time. We make various proposals such as work plan consisting of work flow, the arrangement of the machinery, the quantity of processing, and costs, and CO<sub>2</sub> emission simulations.



Hi-OSS everywhere

### Demonstration site opening to show the comprehensive feature of Hi-OSS

A demonstration site exclusive for Hi-OSS near Tsuchiura Works and Kasumigaura Works was opened in July 2007 to show the possibilities of Hi-OSS. Every

Wednesday in principle, visitors from all over Japan can see the machines for Hi-OSS working and confirm their effectiveness. To date, about 860 people including our employees have observed the demonstrations.

We use the demonstration site in various ways such as introducing our products and environmental technologies to strengthen relations with customers. Customers can exchange information relating to environmentally friendly construction methods, and have good ideas for new environmental businesses at the site.



Hi-OSS demonstration site

### Active provision of information relating to environmental activities

We provide diverse information to customers who aim to expand business and to reduce environmental impact at the same time. As part of this, we began to publish a magazine called "The Earth" in fiscal 2007. The magazine attracts a diverse readership, including administrative agencies, seeking information on the global environment. Also popular is our "Vital! Valuable! Environmental Guidebook", which explains laws and regulations relating to the environment, drawn from our consultations with customers on how to obtain permission.



### Hi-OSS playing an important role in land preparation work in Kayamaru section, Tsukuba

**[Work name:]** Land leveling and other work outside B-9 quarter in Kayamaru section

**[Owner:]** Urban Renaissance Agency

**[Contractor:]** Taisei Corporation

The Ibaraki branch of the Urban Renaissance Agency is developing land contiguous to the Tsukuba Express line. This work is part of the development, and converted 32ha of land in front of the Tsukuba Express Midorinoeki station in Tsukuba to residential area. A feature of the work was that about 220,000m<sup>3</sup>



Soil sorting

of soil mixed in with rubble and waste was sorted and recycled on site. Although garbage, etc. was disposed of as industrial waste, rubble is recycled as crushed stones and soil is recycled as banking material for road construction. Hi-OSS was applied to soil sorting and rubble crushing at the site.

#### Column

##### Comments of the owner

### ■ This work was a big challenge for the Urban Renaissance Agency, but our efforts paid off.

The basic role of the Urban Renaissance Agency is conducting construction work taking into sufficient consideration the social environment, aiming for creating a recycling society. The agency is endeavoring to raise the rate of waste recycling and to reduce transportation processes (reduction of CO<sub>2</sub> emissions) and costs.

The work operation had to be done taking into consideration the effects on the vicinity and traffic because the site is in front of a station. So it was necessary to process and recycle soil containing waste at the site to reduce transportation work. A solution was also needed to cope with the diverse characteristics of the soil and the state of the mix of waste. We spent sufficient time to conduct tests to materialize a system capable of maintaining the quality of sorted soil, making rubble reusable and, in addition, raising processing capacity under the circumstances stated above. After four months of testing, we materialized the system we wanted by using Hitachi Construction Machinery machines and machines of other manufacturers. I believe the system was the best system for Urban Renaissance Agency, which is appointed to use recycled materials by the prefectural governor, to meet the duty mentioned above. While assembling this system, six improvements raised the work efficiency of products for recycling, using ideas of relevant people. This will be useful for the future business of Hitachi Construction Machinery.



**Mr. Masahiko Osonoe**  
manager  
Construction Work Planning Team  
New Town Business Department  
Ibaraki branch  
Urban Renaissance Agency



Soil Sorting and rubble recycling as the firm appointed to use recycled materials by the prefectural governor

#### Column

##### Comments of the contractor

### ■ The volume processed, sorting quality and support system were satisfying.

Since the characteristics of surplus soil in Kayamaru are diverse, it is a challenge to set a soil processing system which can handle the above condition. We decided to combine Hitachi Construction Machinery machines and machines of other manufacturers by receiving instruction from the Urban Renaissance Agency and cooperation from the Ecology Division of Taisei Corporation.

The system was designed to reduce the impact on the vicinity and to perform accurate sorting. We were satisfied with the precision of its sorting capability and with its daily processing volume. There were no serious problems. Unavoidable incidents such as a conveyor belt breaking were dealt with swiftly. I am expecting Hitachi Construction Machinery to develop a machine which can handle diverse characteristics of soil.



**Mr. Toshiaki Jo**  
Site representative  
Kayamaru Section Land  
Leveling Office  
Tokyo branch  
Taisei Corporation

#### Column

##### Words of employees of REC Kanto (current Hitachi Construction Machinery REC)

### ■ We could make the most of our experience and achievements under the collaboration system of the concerned parties.

We designed the Hi-OSS in collaboration with Hitachi Construction Machinery to respond to the requirements of the Urban Renaissance Agency and Taisei Corporation. I am sure we helped to make improvements in the work efficiency through the production and remodeling of parts to raise the work efficiency of products for recycling, making the most of what we have learned in the construction machinery leasing business. [Okano]

The stop of just one machine in Hi-OSS would greatly affect the whole project. So we committed ourselves to prepare for dealing with problems expected during the work. [Miyano]



Hi-OSS Group Large-Area Sales Department REC Kanto

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