

# SUCCESS STORY

## TAMAGAWA ACADEMY

### TOKYO, JAPAN



#### ORWAK BALER IS THE CORE OF THE ENVIRONMENTAL EDUCATION AT TAMAGAWA ACADEMY

PET bottle compaction in the Orwak baler not only reduces waste disposal costs, but it also provides the opportunity to learn more about recycling and sustainability.

##### **TAMAGAWA IN MACHIDA CITY, TOKYO, WAS FOUNDED IN 1929 AS AN ELEMENTARY SCHOOL.**

Currently, it is an academy providing education from kindergarten to graduate school level within a single campus. In addition, Tamagawa Station" functions as a transportation hub not only for students but for residents in the area.

At Tamagawa "the respect for nature" is one of the educational beliefs. The academy not only works to reduce waste and promote resource recovery at its own facility, but also provides environmental education. By implementing this, Tamagawa develops human resources with "environmental literacy."

To keep the frequented park and walkways clean, waste bins and PET bottle collection boxes are placed on campus. The bottles are then compacted with great results in the Orwak multi-chamber baler 5070-HDC and the bales are collected by a recycler.



##### **Educational opportunity**

In addition, the site, where waste and plastic bottles are compacted, is used as an educational opportunity for children to observe and learn more about recycling and sustainability.

Tamagawa Academy began compacting plastic bottles collected on campus in the 2000s. Until then, the collected bottles were simply collected in uncompacted form by a WMC, but in response to the growing global environmental awareness such as reducing CO<sub>2</sub> emissions, and to reduce the cost of waste collection, Tamagawa decided to install compaction equipment.

The first waste compactor had a big press force and got the job done, but operator safety was not its strongest suit and there was a concern for injuries at work. Repair costs and the number of times waste had to be collected while the compactor was unavailable increased, and so did the waste management costs, which became an issue.

##### **Safety, the main priority when selecting new baler**

When choosing a new waste compactor, safety was the main priority and Tamagawa invested in the Orwak baler 6040-HDC with a cross-binding function. It had double and triple safety measures in place to prevent malfunctions, enabling workers to compact PET bottles while feeling safe and protected.

At Tamagawa Academy, they not only reduce the cost of waste disposal on campus by using a baler, but also work on environmental issues such as CO<sub>2</sub> reduction at school, and the children, who will be responsible for the future, are involved in environmental education and environmental conservation practices. They are learning about separating waste and compacting recyclables.



### The future of waste disposal

Particularly in social studies education, the fourth-grade elementary school students get to load empty bottles in the baler and watch them being compacted and baled. The students work actively with environmental issues, such as thinking about the future of waste disposal, presenting the results of their learning so far at the Machida City Bioenergy Center, and exchanging opinions with city officials to come up with ideas for future waste treatment.

These efforts have been recognized in Machida City, where Tamagawa Academy is located, and the city has awarded the Machida 3R Award, a system that recognizes business establishments that actively and systematically work to reduce and properly discharge general industrial waste. It has been highly praised, winning awards three years in a row.



### Double bale chambers, a feature that improves work efficiency

Tamagawa is currently using the new Orwak baler Multi 5070-HDC, which is designed for cross-binding of the bales just as the predecessor it replaced, but this baler also comes with two bale chambers. That is a great feature and advantage as it dramatically improves work efficiency when one chamber can be loaded with bottles while the baler is compacting in the other.

The contact at Tamagawa Academy comments:

*"Because we are able to compact the volume of the PET bottles about 5 or 6 times, the waste collections were reduced from about 20 to 5 container pickups a year and this has naturally resulted in a reduction of the waste disposal costs."*



Image sources: Tamagawa Gakuen and Orwak Japan

**"At Tamagawa Academy, we would like to promote the fact that compaction equipment is used at the core of the school's environmental education, and that balers can greatly reduce the cost of waste disposal."**