



September 7, 2021

## The Japan Packaging Contest 2021: HTS Received "Minister of Economy, Trade and Industry Award" and "Technical Packaging Award"

Hitachi Transport System, Ltd. is pleased to announce that our "Development of packaging material for domestic transportation of large equipment" won the Minister of Economy, Trade and Industry Award, and our "The redesigning an under-tray of a washing machine: curve shaped edges by the circular cutting" won the Technical Packaging Award at the Japan Packaging Contest 2021 held by the Japan Packaging Institute.

The Minister of Economy, Trade and Industry Award is given to the best work in this contest. It is evaluated as the best overall work that meets many requirements on packaging such as protection and function, and it is also economical and environmentally friendly.

## 1. Received the Minister of Economy, Trade and Industry Award (JAPAN STAR Award): Development of renewal of package for large equipment

Previously, each item was fixed directly to truck bed with lashing belt and that takes time for packing. This system produces excess space, and the loading ratio was getting worse. In order to solve these issues, we developed a special packaging material that sandwiches the product from both sides with plywood cushioning material. It attached to the product and fixed with stretch film. As a result, the work of individually fixing each product with a lashing belt is no longer necessary, The work time was reduced by 30% compared to the past, and also the loading ratio was improved by 70%.

The value of impact that the product receives during transportation was reduced by 20%, and also reduced the risk of damage. In addition, the improved loading ratio reduced CO<sub>2</sub> emissions by 43% compared to the previous system. The use of returnable cushioning materials also contributed to a reduction in environmental impact.





## 2. Received "Technical Packaging Award": The redesigning an undertray of a washing machine, curve shaped edges by the circular cutting

Until now, the under-tray of the packaging for washing machines required time-consuming assembly. In developing the packaging for a new washing machine, we tried to reduce the required time by improving the structure of the tray from an assembly type to a stand-up type. But when the ruled line \* was straight, the stand-up part rebounded outward and the tray would deform, making it difficult to cover the product with an outer box.

To solve this issue, we made the ruled lines arc inward, and made the ears of the four corners of the tray angled to provide more force to pull the rising part inward. The result was a product that retains rigidity while minimizing outward rebound. In addition, the use of high-density, thin corrugated cardboard made the product less likely to be crushed during conveyor transport. By changing how the cardboard was cut out, we made it possible to use the material without waste. As a result, the workload time was reduced by 20% and material costs were also reduced by 20% compared to the previous system. In addition, the amount of waste cardboard has been reduced by 25% to achieve environmentally friendly packaging.

\*Ruled line: A line that is folded at a certain point of the corrugated board so that it can be bent neatly when it is assembled into a three-dimensional shape such as a box.





Comparison of before and after improvement



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Under the business concept "LOGISTEED," we aim to become the most preferred global supply chain solutions provider, and we strive to achieve new innovations by enhancing the core domain and expanding collaborative area across businesses and industries.

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