

STV

Sorting Transfer Vehicle

Daifuku's Sorting Transfer Vehicle systems offer users the latest technology while incorporating proven engineering design. The STV is designed for seamless integration with unit load Automated Storage/Retrieval Systems (ASRS).

Daifuku's real-time inventory control software not only controls the automated material handling equipment, but offers precise material tracking. Best of all, choosing DAIFUKU means that you have selected a partner with the experience and expertise to provide a total system solution to meet any application requirement - from the simplest to the most complex.

Sorting Transfer Vehicles from Daifuku are a fast, flexible, and cost-effective method for moving material in and through automated high-throughput operations.



Fast and Dependable

Faster than conveyor systems, DAIFUKU STVs glide smoothly and quietly at speeds up to 200 metres per minute. The modular construction and built-in diagnostics simplify installation and maintenance, and make it easy to expand.

Ready for Expansion

As your operating volume increases, simply add STVs to increase capacity. You can also use the existing modular power supply and connect new components to the existing track and input/output stations.

Easy Programming and Inventory Control

STVs feature on-board micro-processor control with easy programming functions. Simply define the layout to the controller and it directs the STV where to go and what to do. Radio frequency communications integrated with DAIFUKU's Real-Time System software track individual STV loads

from pickup to delivery for precise inventory tracking.

Flexible Layout Options

STV systems can operate as a single vehicle bi-directional shuttle, using a straight or L-shaped layout, or as a single- or multi-vehicle continuous loop. Standard modular components can be easily configured to meet a variety of space and performance requirements. Several independent STV systems can be controlled using the same controller, even on separate floors.

Efficient Sortation

STVs can sort loads to different delivery stations without the complex conveyor intersections that can hamper throughput. And because DAIFUKU STVs are bi-directional, they can receive loads as well as deliver them.

Quiet Operation

Polyurethane wheels and a precision guide track ensure quiet operation, making STVs an ideal solution for low-noise applications.

Variations

Single Shuttle System

A single STV travels on a straight or L-shaped rail to deliver pallets between input/output stations and ASRS aisles.



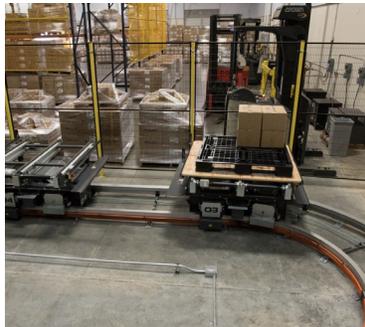
Dual Shuttle System

Two STVs travel on a straight rail, capable of handling 50% more throughput than the single shuttle system. This system can be operated as a single shuttle system while one STV is under maintenance.



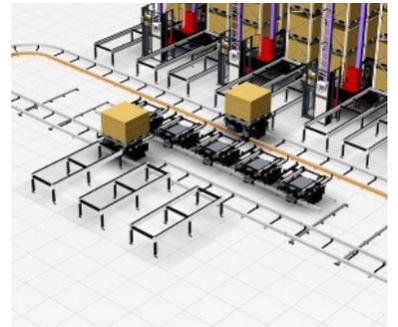
Multi-vehicle Loop System

The multi-vehicle loop system works great for large scale distribution systems integrating ASRS, conveyors, and other material handling equipment. It can also operate as a stand-alone pallet sorting system without an ASRS.



Off-peak Evacuation Pit

With a evacuation space for unused vehicles during off-peak period, energy consumption can be reduced up to 30%, and the service life of vehicle parts is extended.



Technical Specifications

	STV-HS100	STV-HS135	STV-HS200	STV-HS300
Standard Load Size Minimum (W x L x H) Maximum (W x L x H)	900mm x 900mm x 50mm 1,300mm x 1,300mm x 50mm	1,300mm x 1,300MM x 50mm 1,500mm x 1,500mm x 50mm	900mm x 900mm x 50mm 1,500mm x 1,500mm x 50mm	900mm x 900mm x 50mm 1,500mm x 1,500mm x 50mm
Minimum (W x L x H) Maximum (W x L x H)	35" x 35" x 2" 51" x 51" x 2"	51" x 51" x 2" 59" x 59" x 2"	35" x 35" x 2" 59" x 59" x 2"	35" x 35" x 2" 59" x 59" x 2"
Maximum Load Weight	1000kg 2200lbs	1350kg 2976lbs	1,500kg 3306lbs	3000kg 6600lbs
Type	Shuttle, Curve, Loop			
Travel Speed	With Load 160m/min - No Load 200m/min. With Load 525ft./min - No Load 656ft./min.			