

SMART CART | DAIFUKU

300SC

Model 300 Single Conveyor
3,200 Lbs Max Pallet Capacity

Daifuku's Jervis B. Webb Company continues its 50-year tradition of leading the industry in Automatic Guided Vehicle technology with SmartCart Automatic Guided Cart Model 300SC. The Model 300SC SmartCart is the top-selling AGC offering ultimate flexibility, reliability and scalability at an affordable price.

FEATURES

Conveyor Deck: Designed to move pallets from conveyors with transfer time in as little as 10 seconds.

Safe: Safety laser scanners provide detection of operators and objects.

Affordable: Many applications can demonstrate Return on Investment in three months or less.

Simple: CartTools® software provides a user friendly interface to implement/make changes. Non-invasive magnetic path and RFID transponder locations simplify deployment.

Industrial: Steel construction with powder coat and industrial enamel paint.

On-Floor: All equipment that needs to be installed to run your system can be installed on the floor, making the installation non-invasive and configurable. In-floor options are also available for ultimate durability.

Integration: If desired, standard radio communication options with Webb's System Automation Manager™ (SAM) Software can provide Traffic Control and Interface with Plant Control System.

Hands-Off: Automatic charging to allow 24/7 hands-off operation or manual charging that can run 6-16+ hours.



OPTIONAL FEATURES:

- Fast Automatic Charging
- Radio Communication
- Wheel Brushes
- Load Guides for Narrow Loads
- Side Swipe Optics
- Cab Side Covers
- Music Generator

General Specifications

Weight / with batteries	2360 lbs (1070 kg) / 2600 lbs (1180 kg)
Dimensions	W: 57" (1450 mm) L: 91" (2310 mm) H: 51" (1300 mm)
Maximum Load	3200 lbs (1450 kg) Minimum 40" X 40" distributed load
Maximum Pallet	48" X 48"
Roller Conveyor	2.5" dia., 11 GA wall 3.25" on center
Effective Widths	41", 43", 46", 49" - width of pallet in direction of transfer
Top of Roll	18" to 32" in one inch increments
Transfer Speed	45 to 10 FPM, soft start
Load Sensing	Yes, using cross conveyor optic
Transfer	Left and Right side
Transfer Interface	Optical with emitter and receiver pair on each side
Safety – Front	ANSI B56.5 compliant bumper
Speed – Laser Bumper	15 to 160 FPM, 6 speeds, 1 FPM increments
Battery Options	4 – AGM 105AH 12VDC each, 210AH 24VDC battery pack 4 – AGM/TPPL 102AH 12VDC each, 204AH 24VDC battery pack
Automatic Charge	80 amp charge rate (if equipped)
Fast Automatic Charge	140 amp charge rate (if equipped)
Manual Charge	Up to 25 amp charge rate

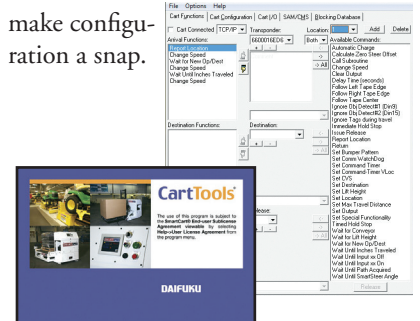
Environment

Environment – Atmosphere	0 to 40° C, 25% to 95% non-condensing humidity
Dust/Water-proof	No
Floor Specs – Edges/Debris	¼" abrupt elevation change maximum, smoothed
Expansion Joints	¼" maximum
Grade Rating	0%
Flatness	1% and ¼" variation in 5' or less
Friction	.6 coefficient of friction between wheels and floor, minimum
Floor Conductivity	Static dissipative, less than 3.5 x 10 ⁷ Ω
Radio Communication	IEEE 802.11a/b/g, plus security encryption (if equipped)

Detailed Specifications

Drive Direction – Automatic	Forward and Reverse (if equipped)
Duty Cycle	95% @ Maximum Load Rating
Drive Unit – Wheel	Vulkolan 210 mm diameter x 70 mm wide
Drive Type	Gear driven steerable turntable
Motor	1000 watts 24VAC
Steering	24 VDC motor
Brake	10Nm, spring actuated (fail-safe)
Caster Wheels	Polyurethane on cast iron 6" diameter x 3" wide
Guidance – Method	Magnetic or SmartSteer navigation
Steer Angle Sensor	Analog 10 turn potentiometer
Steering Accuracy	+/- 1" from physical path
Guide Loss Error	Error generated within 6" of path loss
Hunt for Path	Not offered, violates ANSI B56.5
Sensor	16 millisecond data rate, 50 updates per second
SmartSteer Accuracy	+/- 3" @ 10'
HMI Display	5.7" color touch screen – errors & destinations
Manual Movement	Pendant – via pendant plug receptacle, Fork Pockets
Minimum Path Radius	24" – 90° turn, 60" – 180° turn
Drive Stalled Detection	Yes
Stopping Accuracy	½" proximity sensor, 1-½" transponder reader @ 30 fpm
Distance Initiated Functions	Yes – in 1" increments
Location Method	Transponder tags, 5 data bytes including checksum Virtual Locations via distance initiated functions
Program Method	PC and Wireless (if equipped)
Program Capacity	5000 program steps
Obstacle Detection	180°, programmable up to 2.8 meters
Emergency Stop	5 – front, top left/right, rear left/right
Wiring	Per NEC ampacity guidelines
Side Swipe Optics	Both sides full length of vehicle (if equipped)

CartTools® Software – Simple, standardized toolbox of commands that make configuration a snap.



Pendant Control – When manual movement is required, it's as simple as driving the AGC where it needs to go. Wireless Bluetooth (optional)



SmartSteer – CartTools commanding of the AGC to intentionally leave the path. Allowing maneuvers like pivot turns and ignoring floor problems.

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* For any applications greater than these specifications, please contact Engineering.