

DAIFUKU | AUTOMATIC GUIDED VEHICLES

M300CFL Counter Balanced Fork

Introducing the newest entry into our robust line of automatic guided vehicles... the M300CFL.

This Counterbalanced Fork AGV features a 1,400 lbs (636 kg) load capacity at a 20" (508mm) load center or 1230 lbs (559kg) at 24" (609mm) load center and is perfect for picking up and dropping off pallets, as large as 48" (1218 mm), from conveyors, stretch wrappers or the floor.

FEATURES

Safe: For safety, the M300CFL has as standard 16 pattern laser to detect obstructions of operators and objects in its path.

Efficient: The M300CFL operates on battery power, using the automatic charging it can be operational 24/7.

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

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

Simple: CartTools® and AGVTools software provide a user friendly interface to implement/make changes.

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



STANDARD FEATURES:

- Laser Guidance
- Radio Communication 802.11 a/b/g
- Warning Horn
- Blue Warning Light
- Side Swipe Optics

OPTIONAL FEATURES:

- Fast or normal, Maintenance-free Auto Charging
- Cab Side Covers
- Sleep/Auto-wake
- Wheel Brushes
- Lower cost magnetic tape guidance with RFID transponder location in or on the floor.

DAIFUKU **AUTOMATIC GUIDED VEHICLES**

General Specifications	
Weight / with batteries	2585 lbs (1084 kg)
Dimensions	W: 41" (1041 mm) L: 111" (2820 mm) H: 84" (2133 mm)
Maximum Load	1400 lbs (636 kg) at 20" (508mm) Load Centers 1230 lbs (559 kg) at 24" (609mm) Load Centers
Lift Range	Floor to 48" (1219mm)
Safety – Front& Rear Laser Bumper	ANSI B56.5 compliant bumper (16 Pattern)
Speed	15 to 240 FPM, (160 FPM with magnetic tape) 6 speeds, 1 FPM increments
Battery Options	4-AGM 105AH 12VDC pack, 210 24VDC Battery Pack 4-AGM/TPPL 102AH 12VDC eah, 204 24VDC Battery Pack
Automatic Charge	80 amp charge rate
Fast Automatic Charge	140 amp charge rate
Manual Charge	Up to 25 amp charge rate

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 1/4" (6mm) variation in 5' (1524mm) 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 standard

Detailed Specifications	
Drive Direction – Automatic	Forward and Reverse
Duty Cycle	95% @ Maximum Load Rating
Drive Unit – Wheel	Vulkolan 210 mm dia. X 70 mm wide
Drive Type	Gear driven steerable turntable
Motor	1000W 24VAC
Brake	10 NOM Spring actuated (fail-safe)
Rear Wheels	Poly 6" diameter x 3" wide
Guidance - Laser	Daifuku AGV
Steer Angle Sensor Encoder	Yes
Steering /Stopping Accuracy	+/- 1/2"
Guidance – Magnetic	Magnetic Tape/Bar SmartCart option
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'
Stopping Accuracy	½" proximity sensor, 1-½" transponder reader @ 30 fpm
Location Method	Transponder tags, 5 data bytes including checksum Virtual Locations via distance initiated functions
Program Capacity	5000 program steps
HMI Display	5.7" color touch screen – errors & destinations
Manual Movement	Pendant – via plug receptacle or fork pockets
Minimum Path Radius	24" @ 90° turn, 48" @ 180° turn
Drive Stalled Detection	Yes
Distance Initiated Functions	Yes – in 1" increments
Program Method	PC and Wireless
Obstacle Detection	180°, programmable up to 2.8 meters
Emergency Stop	3 – Front, Top Left/Right
Side Swipe Optics	Both sides near floor
Wiring	Per NEC ampacity guidelines

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



Optional Magnetic-guided 300CF

SmartSteer – CartTools directing the AGV to intentionally leave the magnetic tape path. Allowing maneuvers like pivot turns and ignoring floor problems when in full automatic operation.

DAIFUKU

30100 Cabot Drive
Novi, MI 48377
(248) 553-1000 • FAX (248) 553-1200
info@DaifukuNA.com
www.Daifuku.com/us

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