

M8K-PJ

Pallet Jack

8,000 lbs Pallet Capacity

The Model M8K-PJ is a pallet jack vehicle capable of automatic or manual driving modes, when the need for human interaction is required. It can move pallets up to 8,000 lbs (3628 kg), ideal for today's demanding material handling needs.

FEATURES

Safe: The M8K-PJ offers 6 laser scanners to detect obstructions and personnel.

Efficient: The M8K-PJ is battery powered and charges automatically, yielding up to 24/7 fully automatic operation.

Connected: Integrates with Plant Control Systems via Wi-Fi communications and System Automation Manager™ (SAM) software providing traffic control.

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

Simple: CartTools™ and AGV Tools software provide a user-friendly interface, allowing the customer to modify and expand their system.



NAVIGATION OPTIONS

Natural Feature Navigation (NFN):

The AGV determines its location using LIDAR to identify structures in the environment and match their locations to a virtual map of the facility.

Laser Navigation: Field of reflective targets seen by on-vehicle sensors and used by vehicle computer to determine location.

Inertial Navigation: Odometry data and in-floor waypoints are used by the vehicle computer to determine location.

NAVIGATION ENHANCEMENTS

Enhanced Navigation: Additional sensors can be added to augment the vehicle's navigation technology.

Co-Navigation Technology: Multiple navigation packages may be used on a vehicle in challenging environments.

FEATURES	OPTIONS
<ul style="list-style-type: none"> Automatic Drop/Pick Automatic Charging, 300 amps Automatic Shut off Music Generator 	<ul style="list-style-type: none"> Sleep/Auto-wake Front & Rear Event Camera

Smart Handling
AGV Solutions

General Specifications	
Weight without battery	1,650 lbs (748 kg)
Overall vehicle length & width (less forks)	64.4" (1635 mm) L x 42.8" (1087 mm) W
Capacity @ 24" load center	4,500 lbs (2041 kg)
	8,000 lbs (3628 kg) requires heavier duty forks
Safety	ANSI B56.52 2019 Compliant
Side/dual rear laser bumper coverage	2D Laser Safety Scanner
Blue light warning	Forward travel
Battery Options	24 VDC
Battery compartment size	30.9" (784 mm) L x 13.5" (343 mm) W x 31.6" (802 mm) H
Battery weight min/max	855 lbs (388 kg) / 1550 lbs (703 kg) ✓
Lithium Battery 420AH LiFe PO ₄	
Lithium Battery 630AH LiFe PO ₄	
Lithium Battery 840AH LiFe PO ₄	
Lead Acid Battery 558 AH TPPL	
Automatic Charging	Up to 300 amp
Manual Charging	During off shift/maintenance
Speed	
- Forward	15 FPM (4.5 MPM) to 360 FPM (109 MPM), 1 FPM (.025 MPM) increments
- Backward	15 FPM (4.5 MPM) to 90 FPM (27.5 MPM), 1 FPM (.025 MPM) increments
Environment	
Atmosphere	0 to 104° F (0 to 40° C), 25% to 95% non-condensing
Dust/water proof	No
Floor Specifications	
Maximum abrupt elevation change, smoothed	+/- .25" (6.4 mm)
Expansion joint maximum	.25" (6.4 mm)
Grade rating	3%
Coefficient of friction between wheels and floor	>= 0.6
Floor Conductivity	Static dissipative, less than 3.5 x 10 ⁷ Ω
Radio communications	Wi-Fi 5
Laser Guidance Forward & Reverse	
Steer angle sensor encoder	✓
Steering accuracy	+/- .5" (12.7 mm)
Guide loss	Error generated within 6" (152 mm) of loss path
Stopping accuracy	+/- .5" (12.7 mm)
Detailed Specifications	
Travel direction	Forward & Reverse
Drive Unit -	Wheel 10" (254 mm) dia x 4" (101.5 mm) W – Poly
Drive type	
Motor	3.8 kw AC brushless
Brake	Spring actuated (fail safe)
Steer Motor	AC brushless
Rear wheels	Casters 6" (152 mm) diameter x 3" (76 mm) W – Poly
Load wheels in forks	3.5" (89 mm) diameter x 6" (152 mm) W – Dyalon® A Poly
Fork Length	48" (1219 mm) Longer forks for double pallet handling
Fork Width	6.7" (170 mm)
Face of forks to load wheel center raised / lowered	36.4" (925 mm) / 40" (1016 mm)
Manual Movement Steer head man aboard	✓
Fork Height raised / lowered	9.2" (233 mm) / 3.3" (84 mm)
Lift Speed – lift / lower no load	3/4.7 seconds
Lift Speed – lift / lower full load	4.2/4.4 seconds
Wheel Base Forks raised / lowered Short Forks	85.3" (2166 mm) / 88.9" (2258 mm)
Wheel Base Forks raised / lowered Long Forks	106.2" (2697 mm) / 109.3" (2776 mm)
Drive stalled detection	✓
Program capacity	5000 program steps
HMI Display	5.7" (145 mm)
Event Camera	Front/rear, 1080P, supports up to 128GB microSD card
Emergency Stop button	Right and left side
Start and stop button	Right and left side

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TWO LOAD CAPACITY OPTIONS

4,500 lbs
(2041 kg)

8,000 lbs
(3628 kg)

TWO FORK LENGTH OPTIONS

48" (1219 mm)

96" (2438 mm)*

THREE CONTROLS OPTIONS

Standalone SAM SmartPanel

NAVIGATION

Natural Feature Navigation

Laser - Inertial



* For 96" (2438 mm) forks, consult engineering



Established in 1919, Daifuku Airport America specializes in the design, engineering, installation and support of innovative material handling systems used in the automotive, airport, beverage, warehousing and manufacturing industries. As a subsidiary of Daifuku, we form one of the largest automated material handling companies in the world, providing the widest range of solutions in the industry for companies around the globe.

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