

# Forklift AMR

## AFR-SF-W1500 Series : Stacking Forklift

### Autonomous Stacking. Intelligent Vertical Automation.

The **AFR-SF-W1500** is a high-capacity stacking forklift AMR engineered for fully autonomous pallet transport and vertical stacking operations. With a 1500 kg rated load capacity and Laser SLAM navigation, it delivers precise pallet pickup, placement, and rack interaction without manual forklift intervention.

Designed for warehouse aisles and industrial storage systems, the AFR-SF-W1500 combines high-accuracy positioning, multi-sensor safety architecture, and controlled lift motion to enable reliable automated stacking workflows.



#### Intelligent Stacking Control

Optimized for precise pallet pickup, elevation, and placement, enabling stable multi-level stacking in structured warehouse environments.

#### Advanced Safety Protection

360° laser scanning combined with rear obstacle detection ensures reliable human-robot interaction across dynamic factory floors.

#### Mast Stability & Lift Precision

High-rigidity lift structure ensures controlled vertical motion and accurate pallet alignment during stacking operations.

## Applications



#### Automated Rack Stacking

Autonomous pallet placement into storage racks and retrieval from multi-level shelving systems.



#### Forklift Replacement Automation

Eliminates manual forklift dependency for repetitive pallet lifting tasks.



#### High-Density Warehouse Storage

Optimized for structured aisle environments requiring accurate vertical load positioning.



#### Inbound & Outbound Dock Handling

Automated unloading, staging, and rack storage from dock operations.

**Waaree Autonova** | Contact us for custom configurations and integration support



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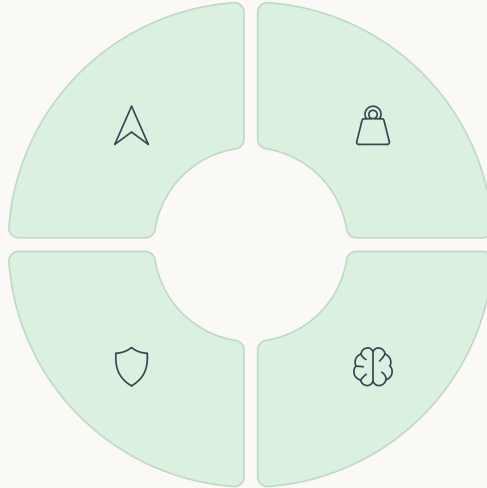
# Features & Technical Specifications

## Precision Vertical Lift Control

High-accuracy pallet pickup and placement ensures safe stacking and stable load engagement.

## Multi-Layer Safety Architecture

Laser, visual, photoelectric, and contact edge sensors ensure safe operation in shared industrial spaces.



## Single Rudder Wheel Drive System

Enables controlled steering and precise alignment within warehouse aisles.

## Laser SLAM Autonomous Navigation

Reliable localization and mapping for accurate movement within structured warehouse layouts.

## Technical Parameters

<b>Product Model</b>	AFR-SF-W1500
<b>Dimensions (L×W×H)</b>	1608 × 830 × 1910 mm Load Center: 600 mm
<b>Lift &amp; Fork System</b>	Rear Fork Height After Lift: 200 mm Min Fork Height: 84 ± 3 mm Min Pickup Channel: 2000 mm
<b>Drive &amp; Navigation</b>	Single Rudder Wheel Drive Laser SLAM Navigation
<b>Load Capacity</b>	1500 kg rated   Machine Weight: 420 kg
<b>Safety Features</b>	Laser + Visual + Photoelectric Sensors Safety Contact Edge Collision Bar Detection Emergency Stop Acoustic & Optical Alarms
<b>Motion Performance</b>	Max Speed : 1.2m/s(No load)   ±10 mm Position Accuracy   Climbing: 3° (5%)
<b>Battery Performance</b>	Manual/Automatic + Manual Battery Replacement 6h runtime   2000 Charge Cycles

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