

AMR Autonomous Mobile Robots

AMR for automatic movement of IRS profile trucks

AMR (Autonomous Mobile Robots) intelligent mobile robots capable of autonomous movement in structured or semi-structured environments, without the need for human guidance or fixed infrastructure (such as tracks or conveyor belts). They use sensors, navigation algorithms, and mapping systems to orient themselves and interact dynamically with the environment.

AMRs allow the movement of cut profile trucks from the IRS island to the welding machines, without human assistance, fully independently and efficiently.

Presentation

Speed and Labour Savings

The autonomous movement of the cut profile trucks, achieved by AMR, eliminates labour from a basic, no-added value activity. Furthermore, it allows the continuous feeding of the welding machines and the fully autonomous management of the IRS island capacity, avoiding production losses or slowdowns due to unloading failures.

5 reasons to choose AMR

Innovate and Automate

1. **High automation:** enables fully autonomous material handling.
2. **Operational flexibility:** navigation in environments shared with human operators (safety compliant).
3. **Automatic storage control:** autonomous material handling and management to optimise work island capacity.
4. **Integration with the work environment:** flexible programming and intelligent management of the work area.
5. **Dynamic obstacle management.**



AMRs are designed to autonomously move the profile trucks, ensuring a constant and rational flow of material from the cutting and work centres to the welding machines. AMRs integrate seamlessly with the work environment, allowing completely safe movement. The system recognises obstacles and personnel passing through the work area.

AMRs are equipped with modern **software that optimally manages work missions, maximising productivity and workspace management.**

Specifications

Dimensions

Operating Radius	Depends on Wi-Fi network
Width	1350 mm
Height	250 mm
Weight	300 Kg

Details

Installed Power	2Kw
Power Supply	230 V
Transportable Kgs	1000 Kg

Operating Specifications

Work module

Structure

System based on one or more AMRs depending on the size of the workshop;
 Autonomous AMR charging station;
 Wi-Fi control rack with PC and software for managing navigation algorithms.

Operations

Autonomous movement of trucks with cut and machined profiles.

Technical Specifications

Operators n. 0

Transportable truck dimensions

Length	1900 mm
Width	1600 mm
Height	2500 mm