


**FORI AUTOMATION**

 Privately held, U.S. Owned  
and Operated Since 1984

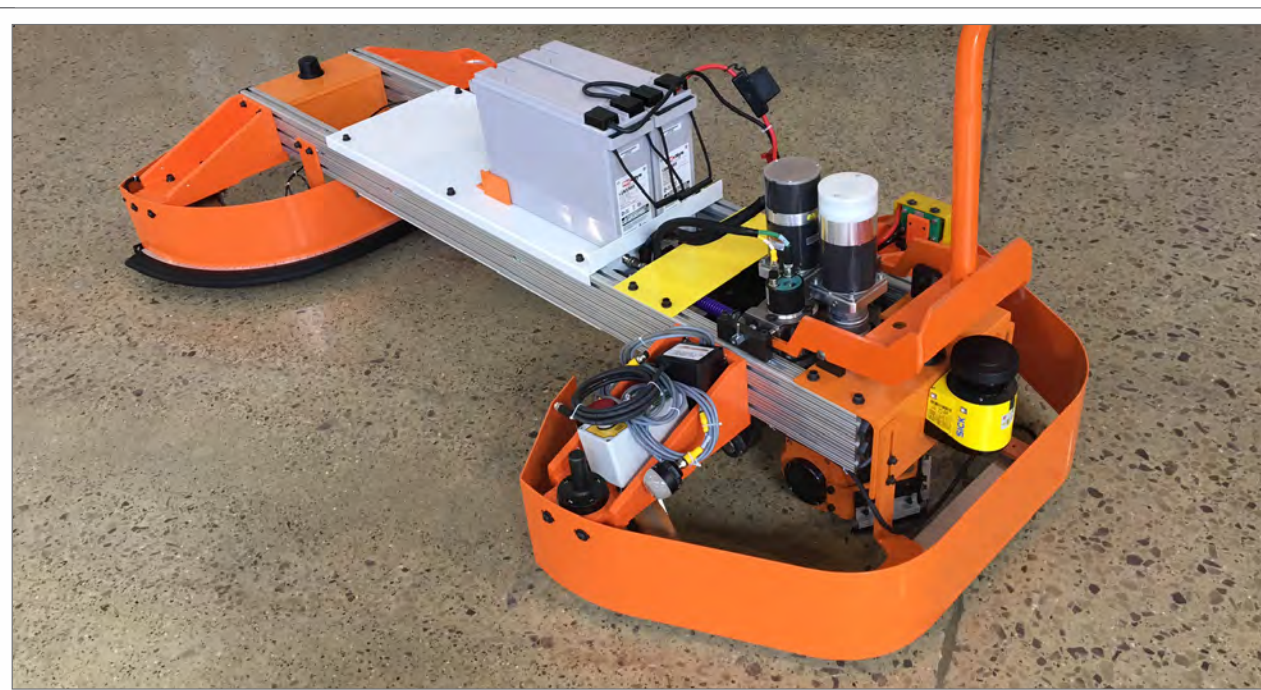
# FORI AUTOMATION

## Automated Flex Floor AGC

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**GLOBAL HEADQUARTERS**
**Automated Guided Vehicles**

## Flex Floor AGC with 2,000 lbs. / 909 kg. Capacity



The Fori Flex Floor AGC is a cost effective material handling solution for automated assembly systems. The Flex Floor is a direct replacement for Fori Flex Rail guided carts and traditional conveyor systems. Total capacity of the Flex Floor AGC is 2,000 lbs. The capacity accommodates many different assembly processes within the automotive and non-automotive industries.

The Flex Floor chassis has been designed to remain the same from project to project, the Tooling Pallet is customized within different assembly processes in order to accommodate various product and applications. The Flex Floor utilizes magnetic tape or bar guidance, providing improved flexibility and reduced infrastructure.

# Flex Floor AGC Specifications

## INCREASED FLEXIBILITY

The flex floor AGC provides a more flexible material handling solution versus traditional conveyor based assembly systems.

- **Power supply:** 24 VDC Lead Acid or Lithium Ion **Wireless**
- **WLAN:** IEEE 802.11a/b/g
- **Guidance:** Fori Hall Effect Magnet Sensor
- **Power-train:** Drive steer with (2) 24V DC brushless servo motors
- **Drive Control:** Single channel DC brushless motor controller
- **Charging method:** Automatic charging pad included and/or manual plug-in
- **System Control:** Safety PLC & Tethered Control Pendant
- **Safety System:** Safety Scanner, pressure bumpers, status lights and alarm



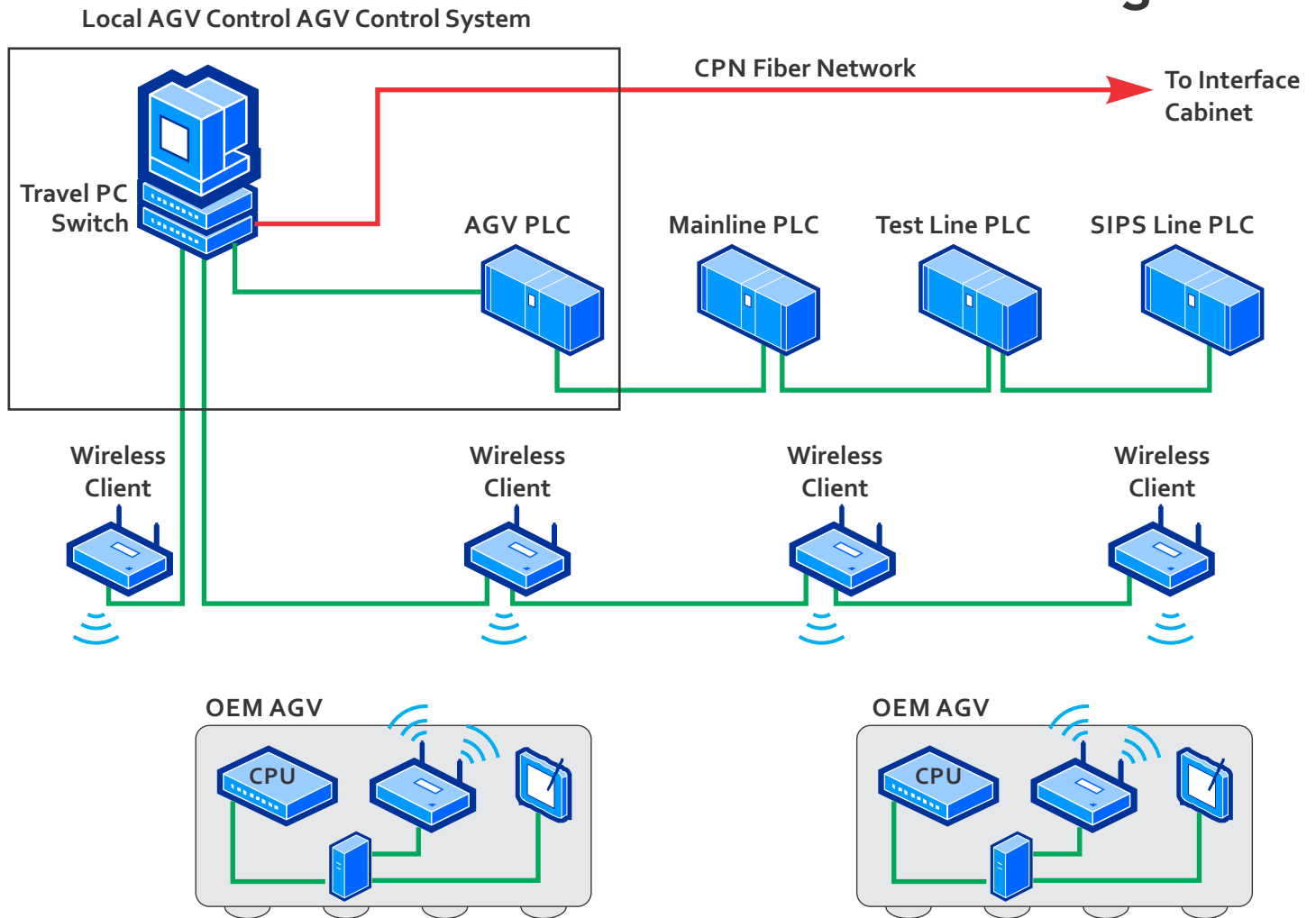
The Fori Flex Floor AGC is an upgrade to the Fori Flex Rail guided assembly carts. Whereas the Flex Rail cart follows a floor mounted guide rail, the Flex Floor AGC utilizes Fori's patented magnetic guidance sensor and magnetic bar or tape. The Flex Floor system provides increased long term flexibility and further reduces the total system infrastructure versus a traditional conveyor based assembly system.

The Flex Floor chassis and drive system was designed to transport up to 2,000 lbs., supporting a wide range of assembly processes. The Flex Floor is a modular system, accommodation of different product is completed through the custom tooling pallet, the chassis of the Flex Floor remains unchanged.

Flex Floor AGCs utilize a standardized drive system and off the shelf components. The results are decreased lead times and overall system cost to the end user. Fori Flex Floor AGCs are Safety PLC based for the vehicle control, providing the end user an open architecture and eliminating the "black box" many of the automated material handling equipment suppliers implement.

Each vehicle is outfitted with the latest safety hardware, ensuring collision avoidance. The Flex Floor assembly system utilizes a Fori Vehicle Management System (VMS) that provides traffic control, monitors vehicle status, battery state and tracks all fault messaging. The Flex Floor and VMS provide a fully integrated and scalable assembly system.

# AGV Controls Configuration



## Product:

- AGCs - Flex Floor

## Results:

- Increased safety
- Decreased infrastructure
- Increased flexibility

## Controls:

- Vehicle management system
- Siemens open architecture
- Full-auto guidance

## Keys to Success:

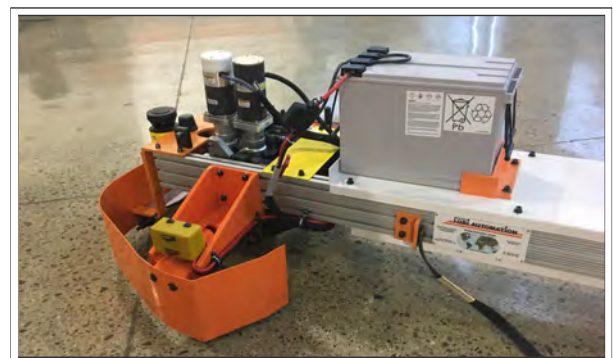
- Flexible guidance solution
- Scalable material handling for assembly systems

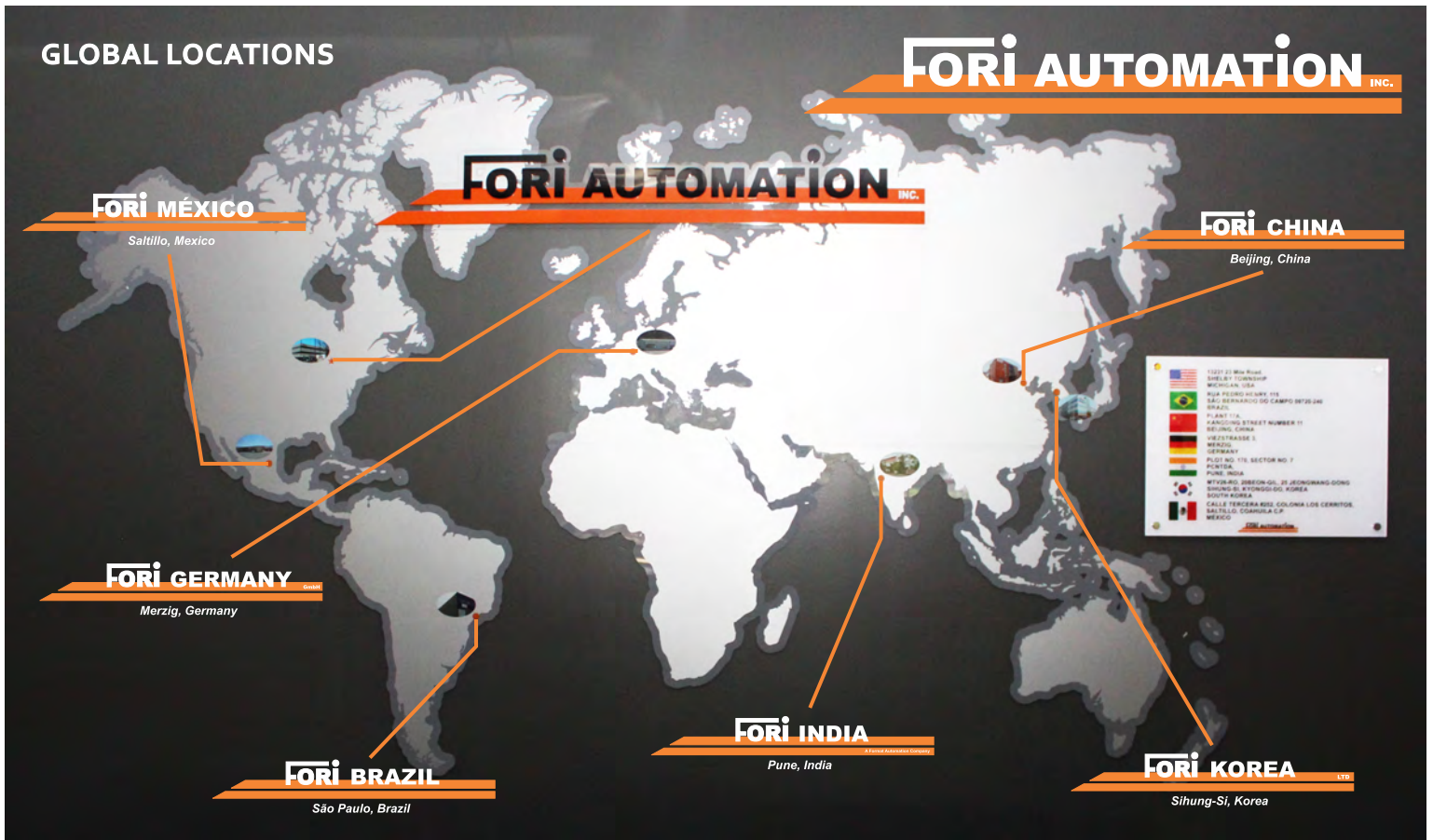
## Safety:

- Safety scanners
- Safety bumpers
- Fail safe PLC

## Guidance Technology:

- Magnetic bar
- RFID for Station Identification





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