



Automatic Guided Vehicle Systems

Mobile Robotics Since 1982



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SOLUTIONS SUITE

Transbotics manufactures, installs, and supports various automation technologies, including custom, and standard AGVs, AGCs, heavy load AGVs, conveyors, batteries, chargers, motors and other related products. Transbotics provides unique automation solutions to a variety of industries, including automotive (and tier one suppliers), primary metals, food and beverage, aerospace and defense, plastics and paper and allied products.



CONSULTATION/ DESIGN

Consultation begins by working closely with our clients to understand the application and overall system requirements. Countless variables are considered and studies are conducted down to through-put calculations. Based on this thorough assessment, our team can make recommendations and submit a proposal. Typically, 2D CAD drawings are provided first, followed by a 3D layout and simulation.



MANUFACTURING

Once a system is established, our clients get a dedicated project management team that follows the project from start to installation. In the manufacturing stage, the team stays in close contact with the client, providing updates, photos and site visits. The team's primary goal is to deliver the system on time, on budget, and with the utmost quality control.



INSTALLATION

Upon completion of the build process, in-house testing of the equipment is conducted, followed by FAT and shipment to site. A team is sent to the client's site to conduct installation and further testing of the system and application. Once approved, the system is ready to run.



TRAINING

Along side the installation stage, the first training with operator(s) occurs. Operators take part in the installation process, enabling them to fully understand how to operate, trouble-shoot, and even service the vehicle. Further training can be provided upon request.



AFTERMARKET

Our Aftermarket team offers a wide array of services to help client's run their system smoothly for the life of the vehicles. From parts, to service, to remote trouble shooting and training. Aftermarket can be reached 24 hrs a day, 7 days week to provide excellent customer service.

Revolutionary AGV

Benefits

AGVs are great for increasing efficiency and reducing costs, by helping to automate a manufacturing site or warehouse. Below are just some of the many benefits.

- Increase Labor Skill
- Less Product Damage
- Multi-shift & 24/7 Operations
- Increased Safety
- Reduced Maintenance
- Improved Accuracy



MODEL TYPES

Since 1982, Transbotics has installed and supported Automatic Guided Vehicles (AGV) and Carts (AGC) globally including custom material handling solutions for production and warehousing. Industries include, but are not limited to Aerospace, Automotive, Food & Beverage, and Primary Metals.



COUNTERBALANCED FORKLIFT

Whether you move floor to floor, rack, block storage, or even double deep, our forklifts can transport a variety of load types and sizes.



HEAVY LOAD

Large capacity vehicles are utilized in a variety of industries such as steel, aluminum and paper mills which all transport sizable loads.



TUGGER

Tows a variety of loads including carts, trolleys, and trailers. Our tuggers can handle both light and heavy-duty applications.



LIFT DECK

Most commonly these AGVs move loads between unpowered stands but they also interface with certain types of powered conveyors.



CONVEYOR DECK

Conveyor style AGVs are used to move pallets, drums, boxes, totes, and skidded items throughout various areas of a facility.



STRADDLE FORKLIFT

This vehicle is designed to easily maneuver pallets through cramped spaces.



ASSEMBLY LINE

Automatic Guided Vehicles are commonly used for assembly lines or can also replace traditional in-floor tow lines.



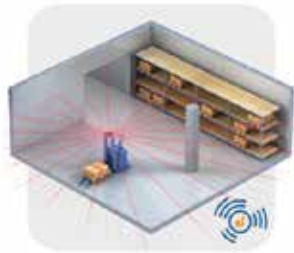
OUTDOOR & TEMPERATURE CONTROL

The system design considers temperature, terrain, visibility, humidity and rain among other variables to provide effective indoor and outdoor automation.

CUSTOM

Transbotics is a leading provider of AGV customization. Our range of solutions and talented engineers allow for us to tackle the most challenging application requirements within most environments. Custom engineering is available for all AGV vehicle types available in the market today.

NAVIGATION



Natural



Reflector



Spot



Magnetic Tape

AGVs can be designed to utilize a number of navigation technologies available in the market today. Depending on the complexity of a facility, our engineers will recommend the best possible navigation method for a system. The illustration to the left, shows some of the more popular navigation methods today. Other methods include bar-code and inductive wire.

An AGV is equipped with a vehicle controller where the map of a facility is stored. The controller calculates and supervises the path to drive in order to reach the destination point. The drive and steer encoders report the distance and the direction that the vehicle has driven to the vehicle controller. This feedback is used by the vehicle controller to guide the vehicle.

SYSTEM SAFETY

Transbotics is committed to safety in the workplace – safety for the vehicle and safety for the operators working around the vehicles. Extensive vehicle and system safety features, thorough and detailed safety manuals, and comprehensive safety classes for customer personnel, ensure that each Transbotics customer owns and works within the safest system possible. Safety features include:

- Safety Relay
- Bumper Safety
- E-Stop Buttons
- Side Protection
- Warning Lights
- Audible Alerts
- Battery Safety

In addition to following OSHA standards, all controls provided are also ISO9001 approved. A series of procedures ensure that quality and reliability is always built into each system.



360 ° safety laser coverage

COMMON APPLICATIONS



EVACUATION OF PRODUCTION LINES

Great for moving palletized loads and transporting them to stretch-wrap lines.

EVACUATION OF STRETCH-WRAP LINES TO DOCKS OR STORAGE

Able to transport from stretch-wrap lines to docks or storage.



ASSEMBLY LINES OF ALL TYPES

AGVs are able to carry (unfinished) products to be produced or assembled along the production line, working in collaboration with operators or robots as needed.

AUTOMATIC TRAILER LOADING

(ATL) systems utilize Self-Guided Vehicles to precisely load trailers without human interaction. The vehicles can pick up or drop off product or raw materials from/to stock or the assembly line.



ROLL TRANSPORT

Perfect for carrying rolls of any size, for example paper, films, laminates, metals and woven goods.

COIL TRANSPORT, ALUMINUM AND STEEL

Able to move heavy loads upwards of 50,000 lbs. or more within a facility, dropping off and picking up automatically within a designed path.



FOOD AND BEVERAGE STACKING

Great for any environment, cold storage or outdoor applications. Able to smoothly stack food and beverage products.

ADVANCED TECHNOLOGY

Transbotics offers the latest technology to achieve optimal operating efficiencies, thus increasing your bottom line. This allows us to improve safety and the ability to react quickly to operational changes.

- Superior Position with Vector Control
- AC Motors do not require maintenance like DC motors. This reduces maintenance cost and increases ROI.
- AC Motor Controller Ratings up to 1,500 Amps@ 48V. Unequaled power for moving large loads like jumbo rolls with AC motors.
- We offer State-of-the-Art fast charging technology with Hi-Tech sealed Lithium chemistry battery solutions or pure lead configurations. Lithium batteries have fast-charge capability and nominally 5,000-20,000 cycles for unmatched battery life.
- CWAY- A 3D user interface system for remote system monitoring and analytics.
- HMI- Human Machine Interface on each AGV to provide system status.

OUTDOOR & TEMPERATURE CONTROL

Automated Guided Vehicles offer varying degrees of flexibility. Designed for both indoor and outdoor conditions AGVs can accommodate a range of environmental elements such as wind, rain, and snow as well as harsh indoor temperatures such as those found in cold-storage facilities or hot mills and factories.

ELIGIBLE VEHICLES INCLUDE

Counterbalanced Forklift	Assembly
Tugger	Straddle
Conveyor Deck	Unit Load
Heavy Load	Lift Deck

The Transbotics AGV is designed specifically for the individual conditions it may encounter at a customer's facility - providing effective indoor or outdoor automation. The system design considers a number of environmental factors including temperature, terrain, visibility, humidity and rain, allowing for flawless transport in the main facility and between multiple production buildings if desired.





TRANSBOTICS



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