



COMPANY PROFILE

AMS, Inc. is dedicated to serve our customers with trust and reliability. We have numerous branches throughout North and South America. We have excellent reputation and relationships with companies like Delphi, Bose, Flextronics, etc. Our commitment to provide high quality products with competitive pricing has lead for the company to grow rapidly over the last 10 years. Our various product lines and automated equipment will provide solutions and production effectiveness for any companies.

WHY AMS?

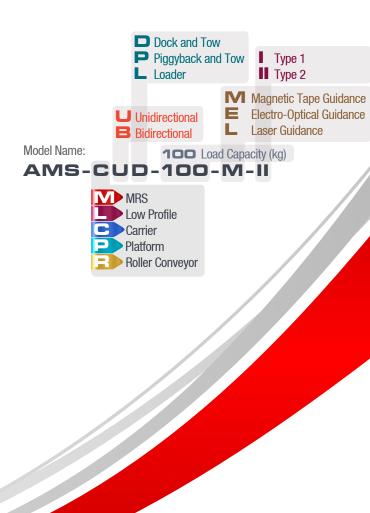
AMS AGV's have been proven to be successful in many companies in the worldwide. We are backed by many years of experience in automation and with highly trained technical support team. We are continuing to serve our customers with highest satisfaction. Learn about our AGV's and choose what model suits best for your production line. If not sure please feel free to contact our AMS agents and we will provide you with answers to your questions.



TABLE OF CONTENTS

| MRS AGV – Unidirectional Dock & Tow (AMS-MUD-XXX-X-I) | 04 |
|--|----|
| Low Profile AGV Series – Unidirectional Dock & Tow (AMS-LUD-XXX-X-I) | 05 |
| Low Profile AGV Series – Unidirectional Ultra Low Dock & Tow (AMS-LUD-XXX-X-II) | 06 |
| Low Profile AGV Series – Bidirectional, Dock & Tow (AMS-LBD-XXX-X) | 07 |
| Carrier AGV Series - Unidirectional Piggyback (AMS-CUP-XXX-X-I) | 80 |
| Carrier AGV Series – Unidirectional Piggyback (AMS-CUP-XXX-X-II) | 09 |
| Carrier AGV Series – Unidirectional Dock & Tow (AMS-CUD-XXX-X) | 10 |
| Carrier AGV Series – Bidirectional SMT Equipment Loader (AMS-CBL-XXX-X) | 11 |
| Platform AGV Series – Unidirectional Loader (AMS-PUL-XXX-X) | 12 |
| Platform AGV Series – Heavy-Duty, Bidirectional Piggyback (AMS-PBP-XXX-X) | 13 |
| Platform AGV Series – Bidirectional Large-Size Bidirectional Loader (AMS-PBL-XXX-X) | 14 |
| Roller Conveyor AGV Series – Bidirectional Roller Conveyor Loader (AMS-RBL-XXX-X-I) | 15 |
| Roller Conveyor AGV Series – Bidirectional Roller Conveyor Loader (AMS-RBL-XXX-X-II) | 16 |
| | |
| AGV Accessories and Optional Items | 17 |
| AMS AGV Photos | 18 |

AMS AGV MODEL NAME NOTATION GUIDE





Unidirectional Dock & Tow

Model Name: AMS-MUD-XXX-X-I

FEATURES AND BENEFITS

This unique AGV type is capable of towing idled cart from its backside. It is built with AMS MRS (Modular Rack System) which shows the versatility of AMS products. Also its robust-built frame with stainless steel allows it to be highly resistant against any mechanical damage and corrosion. It is equipped with long lasting, heavy duty, battery which can last long time without charging. It is economical and durable which makes the best solution for most AGV application.



TECHNICAL SPECIFICATIONS

L1250 x W600 x H950 mm Control Mode Guidance Method Magnetic Tape Guidance Moving Direction Capability

Differential Speed Driving Mode Lifting of Driving **Towing Capability**

Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range 3~5° Stopping Accuracy

Charging Mode Manual Charging Safety Proximity Range

- Less than 20 mm Emergency braking distance required

Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery

- Rechargeable Cycle Limit: > 500 Times

Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection



RECOMMENDED AGV ROUTE MAP



Battery

Safety Protection System

^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Unidirectional Dock and Tow

Model Name: AMS-LUD-XXX-X-I

FEATURES AND BENEFITS

The Low Profile Docking AGV type is used to slide underneath an idled cart and drive it to a desired destination. Very low to the ground design makes it very versatile in docking with idled carts and also doesn't require a lot of



space. For docking operation it uses electric lifting cylinder to attach to an idled cart securely. When the AGV transports the cart to its desired location, the AGV separates from the cart automatically. Then the AGV slides out of the cart and moves away.

TECHNICAL SPECIFICATIONS

Low Profile Dock and Tow AGV Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance Guidance Method

Moving Direction Capability

Driving Mode Differential Speed Lifting of Driving

Towing Capability

Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range Stopping Accuracy

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery

- Rechargeable Cycle Limit: > 500 Times

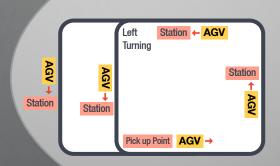
Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection

* All the specifications listed here for each AGV model can be subjected to change without any prior notice





RECOMMENDED AGV ROUTE MAP







Battery

Safety Protection System

Unidirectional Ultra Low Dock & Tow

Model Name: AMS-LUD-XXX-X-II

FEATURES AND BENEFITS

This Low Profile Docking AGV type is a variation of AMS-LUD-XXX-X-I. Its functionality is same as model AMS-LUD-XXX-X-I, but much lower height design for more agility for slide and dock with idled carts.

TECHNICAL SPECIFICATIONS

Low Profile Dock and Tow AGV Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance Guidance Method

Moving Direction Capability

Driving Mode Differential Speed Lifting of Driving

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration

Grade Capability Range Stopping Accuracy

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery

- Rechargeable Cycle Limit: > 500 Times

Safety Protection System Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection



AGV

Battery

^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Low Profile AGV Series

Bidirectional, Dock & Tow

Model Name: AMS-LBD-XXX-X

FEATURES AND BENEFITS

This Low Profile Docking AGV type is another variation of model AMS-LUD-XXX-X-I. Its functionality is same as model AMS-LUD-XXX-X-I, but this AGV type have function of moving forward and backward. Moving in both direction means less space is needed for the AGV to operate and requires less traffic control.



Guidance Method

Moving Direction Capability

Driving Mode Lifting of Driving

Power Supply

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy

Operating Time Duration Grade Capability Range

Stopping Accuracy

Charging Mode

Safety Proximity Range

Alarm System Battery

Safety Protection System

3~5°

Manual Charging (Automatic Charging is optional)

- 3 meters (Adjustable)

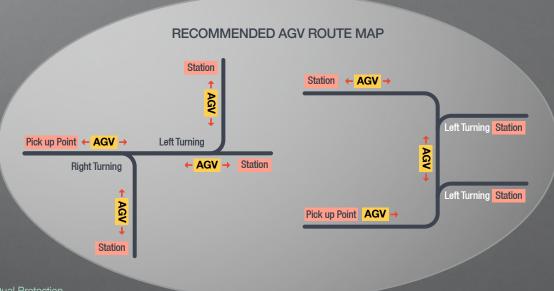
- Less than 20 mm Emergency braking distance required

Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery

- Rechargeable Cycle Limit: > 500 Times

Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection



^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Unidirectional Piggyback Type I

Model Name: AMS-CLIP-XXX-X-I

FEATURES AND BENEFITS

This type of AGV is ideal for direct loading or piggyback style transportation of idled carts stopping at multiple stations. It is mainly used to transport trays, material frames, material cases, etc. The stop and go at different stations can be controlled by the recognition of positioning mark using magnetic tape.

TECHNICAL SPECIFICATIONS

Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance/ Laser Guidance Guidance Method

Moving Direction Capability

Driving Mode Lifting of Driving

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range Stopping Accuracy

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

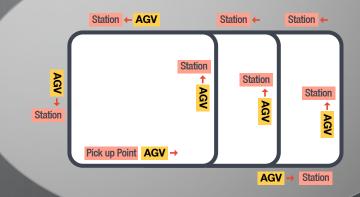
Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery Battery

- Rechargeable Cycle Limit: > 500 Times

Safety Protection System Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection





^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Unidirectional Piggyback Type II

Model Name: AMS-CUP-XXX-X-II

FEATURES AND BENEFITS

This type of AGV is variation of the model AMS-CUP-XXX-X-I. Its functionality and usage purpose is the same, but with the smaller size to operate in more limited space.

TECHNICAL SPECIFICATIONS

Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance/ Laser Guidance Guidance Method

Moving Direction Capability

Driving Mode Differential Speed Lifting of Driving

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range Stopping Accuracy

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery Battery

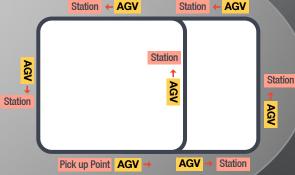
- Rechargeable Cycle Limit: > 500 Times

Safety Protection System Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection

* All the specifications listed here for each AGV model can be subjected to change without any prior notice







Unidirectional Dock & Tow

Model Name: AMS-CUD-XXX-X

FEATURES AND BENEFITS

This type of AGV is variation of the model AMS-CUP-XXX-X-I. Its functionality and usage purpose is the same, but with the smaller size to operate in more limited space and dock and tow capability. This type of AGV is usually used for vehicle material dispatching.

TECHNICAL SPECIFICATIONS

Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance Guidance Method

Moving Direction Capability

Driving Mode Differential Speed Lifting of Driving

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range Stopping Accuracy

Safety Protection System

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

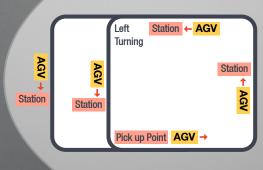
Alarm System Audible and Visual Alarm

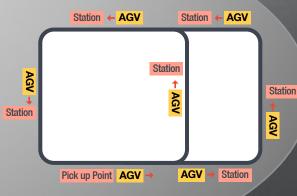
- Maintenance-Free Rechargeable Battery Battery

- Rechargeable Cycle Limit: > 500 Times

Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection









^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Bidirectional SMT Equipment Loader

Model Name: AMS-CBL-XXX-X

FEATURES AND BENEFITS

This type of AGV is used mainly for transportation of PCB magazine racks and other SMT equipment. It has very accurate stopping accuracy of less than 5 mm compared to other AGV's with less than 10 mm accuracy for smoother loading and unloading process. It also can move forward and backward to work in limited space and easier AGV route control.

TECHNICAL SPECIFICATIONS

Type Carrier Dock & Tow AGV
Dimension L960 x W520 x H1050 mm
Control Mode PLC/AGV Moving Control Cl

Guidance Method Magnetic Tape Guidance/ Electro-Optical Guidance/ Laser Guidance

Moving Direction Capability Forward, Backward, Left & Right Turning Capability

Communication Wireless Communication (Optional

Driving Mode Differential Speed
Lifting of Driving Manual/Electric Lifting
Power Supply DC 24V, DC 48V

Towing Capability 100kg, 300kg, 500kg, 1000kg (Customizable) Vehicle Speed 30 ~ 45 meters/min. (Customizable)

Curve Turning Radius Minimum of 300mm (Radius of magnetic tape line

Guidance Accuracy ±10mm
Operating Time Duration 24 hours
Grade Capability Range 3~5°
Stopping Accuracy ±5mm

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range - 3 meters (Adjustable

- Less than 20 mm Emergency braking distance required

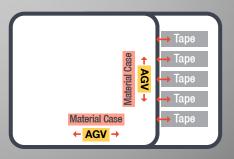
Alarm System Audible and Visual Alarm

Battery - Maintenance-Free Rechargeable Battery

- Rechargeable Cycle Limit: > 500 Times

Safety Protection System Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection





^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Unidirectional Loader

Model Name: AMS-PLIL-XXX-X

FEATURES AND BENEFITS

The Platform AGV can be used for direct loading and carriage. It's easier to operate than the traditional platform AGV. The stop and go at different stations can be controlled by the recognition of positioning mark using magnetic tape.

TECHNICAL SPECIFICATIONS

Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance/ Laser Guidance Guidance Method

Moving Direction Capability

Driving Mode Lifting of Driving

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range 3~5° Stopping Accuracy

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

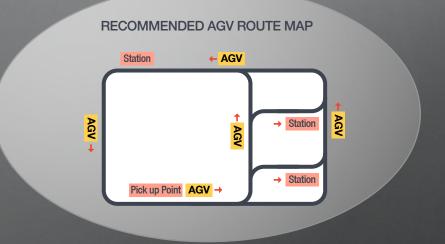
Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery

- Rechargeable Cycle Limit: > 500 Times

Safety Protection System Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection





Battery

^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Heavy-Duty, Bidirectional Piggyback

Model Name: AMS-PBP-XXX-X

FEATURES AND BENEFITS

This Platform AGV type can transport large objects by direct loading or by piggyback style. It has capability to move forward and backward which enables the AGV to travel one direction and return to the original position without turning.



Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance/ Laser Guidance Guidance Method

Moving Direction Capability

Driving Mode Lifting of Driving

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range Stopping Accuracy

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery **Battery**

- Rechargeable Cycle Limit: > 500 Times

Safety Protection System Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection











^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Bidirectional Large-Size Bidirectional Loader

Model Name: AMS-PBL-XXX-X

FEATURES AND BENEFITS

This Platform AGV type is a similar variation of the AMS-PBP-XXX-X. This AGV is more flexible for installation of additional frames that can be added to top of the AGV in order for the more secured transportation heavy of objects.



RECOMMENDED AGV ROUTE MAP

TECHNICAL SPECIFICATIONS

Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance/ Laser Guidance Guidance Method

Moving Direction Capability Forward, Backward, Left & Right Turning Capability

Driving Mode Differential Speed Lifting of Driving

Towing Capability

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range Stopping Accuracy

Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection

Charging Mode Manual Charging (Automatic Charging is optional) Safety Proximity Range - Less than 20 mm Emergency braking distance required Alarm System Audible and Visual Alarm - Maintenance-Free Rechargeable Battery Battery - Rechargeable Cycle Limit: > 500 Times Safety Protection System

Left Turning Station

Left Turning Station

Station Station ← AGV → Pick up Point ← AGV → **Left Turning** ← AGV → Station **Right Turning** AGV Pick up Point AGV -Station

^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Bidirectional Roller Conveyor Loader

Model Name: AMS-RBL-XXX-X-I

FEATURES AND BENEFITS

This AGV type has rollers on the top surface for smoother loading and unloading process. It is mainly used to carry magazine racks or turnover boxes.



Roller Conveyor AGV Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance/ Laser Guidance Guidance Method

Moving Direction Capability Forward, Backward, Left & Right Turning Capability

Driving Mode Differential Speed Lifting of Driving

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range 3~5° Stopping Accuracy

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery Battery

- Rechargeable Cycle Limit: > 500 Times

Safety Protection System Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection











^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

Bidirectional Roller Conveyor Loader

Model Name: AMS-RBL-XXX-X-II

FEATURES AND BENEFITS

This AGV type is a variation of the model AMS-RBL-XXX-X-I. In addition of rollers for loading and unloading it has piggyback carriage capability. It is mainly used to carry magazine racks or turnover boxes. This type of AGV is widely used in electronic and house appliance industry.

TECHNICAL SPECIFICATIONS

Roller Conveyor AGV Control Mode

Magnetic Tape Guidance/ Electro-Optical Guidance/ Laser Guidance Guidance Method

Moving Direction Capability Forward, Backward, Left & Right Turning Capability

Driving Mode Differential Speed Lifting of Driving

Towing Capability Vehicle Speed

Curve Turning Radius

Guidance Accuracy Operating Time Duration Grade Capability Range Stopping Accuracy

Charging Mode Manual Charging (Automatic Charging is optional)

Safety Proximity Range

- Less than 20 mm Emergency braking distance required

Alarm System Audible and Visual Alarm

- Maintenance-Free Rechargeable Battery Battery

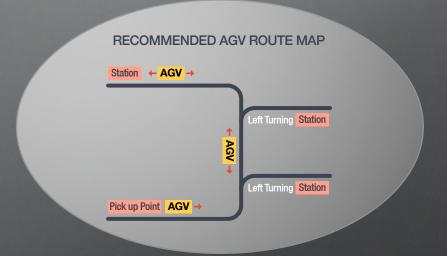
- Rechargeable Cycle Limit: > 500 Times

Safety Protection System Front Object Detecting Sensor + Mechanical Anti-Collision Dual Protection











^{*} All the specifications listed here for each AGV model can be subjected to change without any prior notice

AGV Accessories and Optional Items

Driving Unit

One-Button Lifting Mechanism for Driving Unit



AGV Magnetic Tape Guidance Sensor



Normal Type Electro-Optical Guidance Sensor



Radar Sensor



Position Mark Sensor



Assorted Infrared Sensor



Ominibearing Infrared Sensor



High-Capacity Battery



Wireless Module



High-Quality, Dependable AGV

AMS AGV Photos









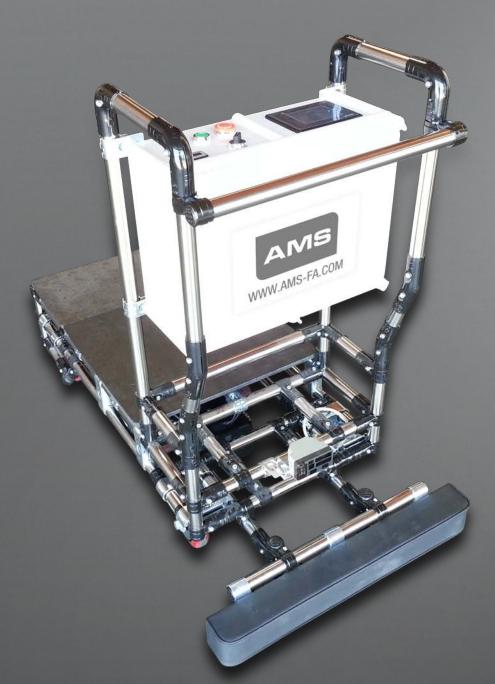












AMS, One stop for Total Solutions to Lean Manufacturing

This unique AGV type is capable of towing idled cart from its backside. It is built with AMS MRS (Modular Rack System) which shows the versatility of AMS products. Also its robust-built frame with stainless steel allows it to be highly resistant against any mechanical damage and corrosion. It is equipped with long lasting, heavy duty, battery which can last long time without charging. It is economical and durable which makes the best solution for most AGV application.