

MAD AUTOMATION SRL

► *LGVs Laser Guided Vehicles*



ITALY HEADQUARTERS

Mad Automation Srl
Via Malpasso 15, 52037 Sansepolcro (AR) – ITALY
Tel. +39 0575 720043 Fax. +39 0575 721680
VAT No. IT01900280510
Cap.Soc. € 500.000,00 i.v.

USA BRANCH OFFICE

Mad Automation America, Inc.
5, Cheryl Lane Boonton Township
New Jersey 07005 – USA
Phone. +1 646 939 1721

info@madautomation.it
www.madautomation.it



LGVs – INTRODUCTION



Mad Automation has developed a new generation of **Laser Guided Vehicles** for transporting materials such as pallets, containers, coils, etc. These vehicles can operate in any industrial sectors, and are particularly suitable for situations where the environmental conditions are not safe for operators.

An automatic handling of internal logistics is also required when the goods are tracked by a software. **The system allows to optimize loading and unloading operations** to and from the warehouse and facilitates point-to-point transportation, even in chainmode operations.

LGVs – STRENGTHS 1/2



HIGH-TECH INNOVATION

The material transport system with Laser Guided Vehicles by Mad Automation, is designed to meet the technological and the productivity needs of the customer, especially for 24h work shifts, and can also be seamlessly integrated with existing systems.



LASER GUIDE NAVIGATION

The total absence of ground infrastructure ensures maximum flexibility and freedom of movement, it also allows to modify or add routes at any time, just with the help of Mad's PC software (CAD for routes creation).



IN HOUSE SOFTWARE DEVELOPMENT

The management and navigation software is developed entirely by Mad's engineers in order to keep the know-how and to be able to adapt it to the needs of the most demanding customers.

LGVs – STRENGTHS 2/2



VERSATILITY AND STURDNESS

The vehicles are designed to work 24 hours a day, ensuring extreme reliability over the years. Mad'S LGV Shuttles can be completely reprogrammed in case of even radical modifications in the tasks to be performed thus resulting in a great investment.



EASY TO FIND SPARE PARTS

Mad'S vehicles and the entire system are made with electronic and mechanical components available on the market. This is a great advantage for end customers who can have their LGVs serviced by their personnel.

**LGVs –
RANGE 1/3**

MAD 3000S

Lifting type	Oil - Hydraulic
Maximum height	3000 mm
Maximum speed	1,5 m/s
Fork lifting speed	0,2 m/s
N° of pallets transported	1 single, 2 overlapped
Pallet type	any kind
Maximum capacity	1200 kg
Positioning precision	up to 5 mm



MAD 3000

Lifting type	Oil - Hydraulic
Maximum height	3600 mm
Maximum speed	1,5 m/s
Fork lifting speed	0,2 m/s
N° of pallets transported	1 single, 2 overlapped or side by side, 4 overlapped or side by side
Pallet type	any kind
Maximum capacity	1700 kg
Positioning precision	up to 5 mm



**LGVs –
RANGE 2/3**

MAD 5000

Lifting type	Oil - Hydraulic
Maximum height	5000 mm
Maximum speed	1,5 m/s
Fork lifting speed	0,3 m/s
N° of pallets transported	1
Pallet types	Special SKU
Fork type	customized for special SKU
Maximum capacity	4000 kg



MAD 7500

Lifting type	Oil - Hydraulic
Maximum height	7500 mm
Maximum speed	1,5 m/s
Fork lifting speed	0,3 m/s
N° of pallets transported	1
Pallet type	any kind
Fork type	Telescopic forks for shelf service
Maximum capacity	1200 kg



**LGVs –
RANGE 3/3**

MAD ROLLER

Maximum speed	1,5 m/s
N° of pallets transported	1 single, 2 overlapped or side by side, 4 overlapped or side by side.
Tipo pallet	any kind
Pallet type	1700 kg
Positioning precision	up to 5 mm
Maximum speed	1,5 m/s
N° of pallets transported	1 single, 2 overlapped or side by side, 4 overlapped or side by side.
Tipo pallet	any kind



LGVs – BATTERIES



BATTERIES

Our range of batteries includes:

- ▶ **lithium batteries:** top performance and total absence of exhalations
- ▶ **pure lead sealed acid batteries:** high performance with very low percentages of exhalations
- ▶ **lead-acid traditional batteries:** traditional batteries line

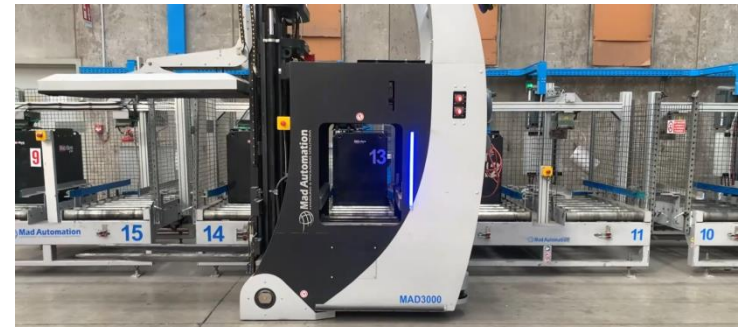
LGVs –

BATTERY CHARGING AND SWAPPING SYSTEMS

Fully automatic Swapping System

Each LGV has at least **two batteries** that are automatically alternated; the LGV moves to the area adjacent to the battery swap and charge station. It automatically delivers the empty battery to the charging station and takes the full battery on board, then it proceeds to complete its tasks. This system can be combined with any type of battery.

[Click here below to watch the video: https://youtu.be/SV6FtnUlurE](https://youtu.be/SV6FtnUlurE)



Opportunity battery charging system

Each LGV has only **one battery** on board, in case of a battery failure, the LGV moves to the area next to the opportunity battery charging system to make a partial recharge for a few minutes. This system is particularly suitable for lithium or pure lead batteries

[Click here below to watch the video: https://youtu.be/XmX5ZNeN5kY](https://youtu.be/XmX5ZNeN5kY)





Thanks for your attention

ITALY HEADQUARTERS

Mad Automation Srl
Via Malpasso 15, 52037 Sansepolcro (AR) – ITALY
Tel. +39 0575 720043 Fax. +39 0575 721680
VAT No. IT01900280510
Cap.Soc. € 500.000,00 i.v.

USA BRANCH OFFICE

Mad Automation America, Inc.
5, Cheryl Lane Boonton Township
New Jersey 07005 – USA
Phone. +1 646 939 1721

info@madautomation.it
www.madautomation.it

