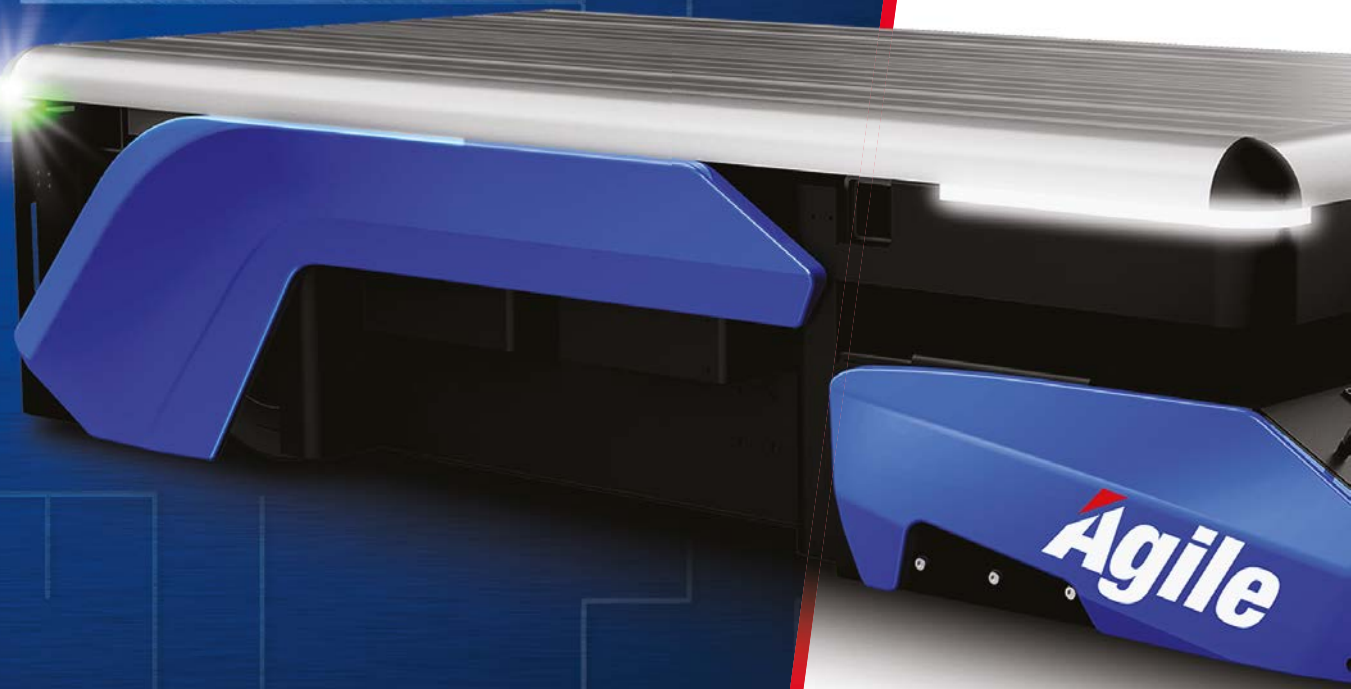


Agile1500



Move ahead



The Culture of Automation

Designing advanced automation solutions means thinking about the industry in a new way, developing new scenarios, designing innovative products and creating ways to streamline production processes.

It requires more than technical competence; it requires a team of professionals whose vision is rooted in a culture of excellence. It also requires a combination of talent, passion and experience that unite to define new trends in automation.

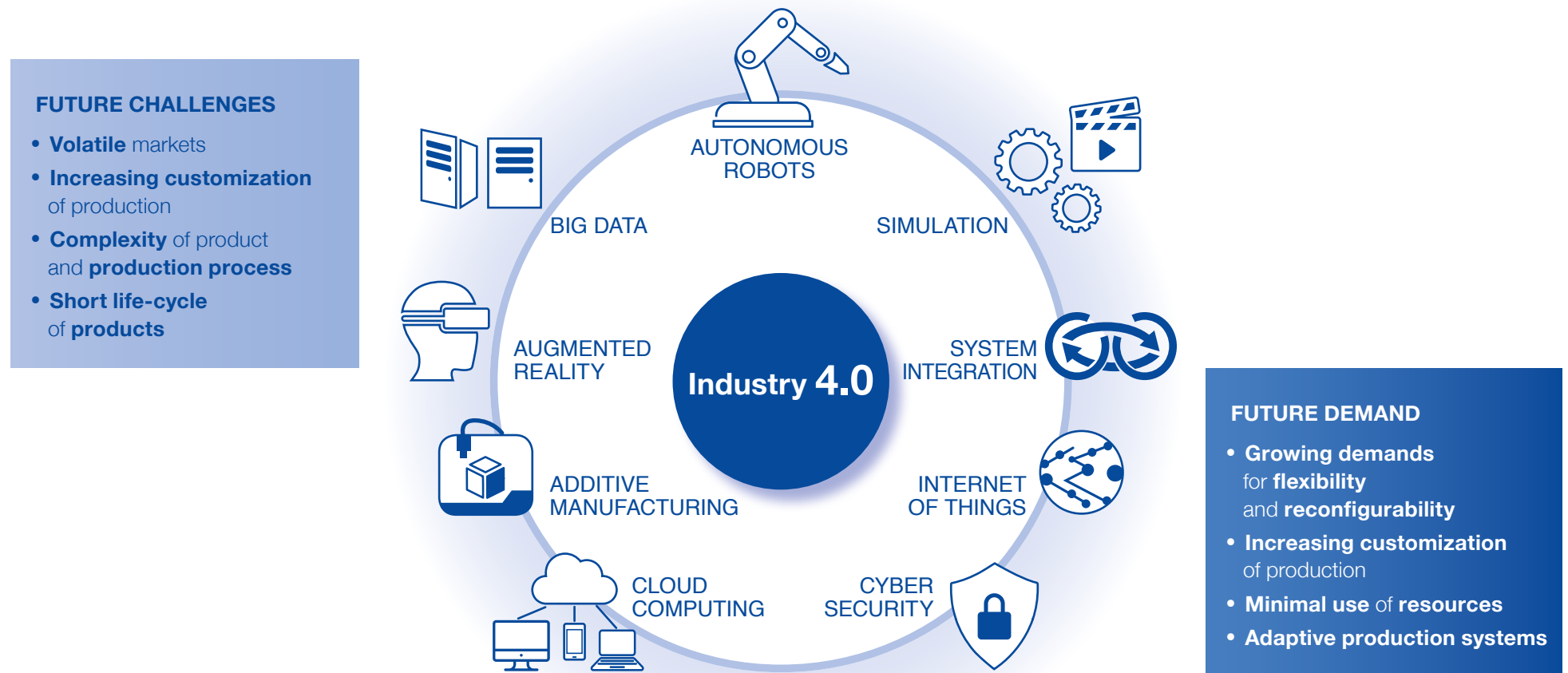
Here at Comau, our passion for our work reflects who we are.



Welcome Industry 4.0

Industry 4.0 is an increasingly popular term identifying a platform that unifies information among participants in the entire value chain, from product inception to design, manufacturing, services and refurbishment. The end result is a system in which all processes are integrated and information is exchanged in real time.

The **Agile1500** AGV forms part of Comau's response to evolving market needs and is an important enabler within the Industry 4.0 paradigm. This fully **automated logistics technology** enables Comau to better support highly individualized, highly efficient production while safeguarding productivity and profitability across the entire manufacturing line.



Agile1500

Agile1500 is the first model within the Comau automated guided vehicles platform and is based upon Comau's open automation design approach: it is flexible enough to be deployed across a wide range of manufacturing and non manufacturing scenarios.

Features

- High performance vehicle
- Best in class payload to size ratio
- Modular design
- Multipurpose applications can be implemented
- Multiple navigation systems are possible

Benefits

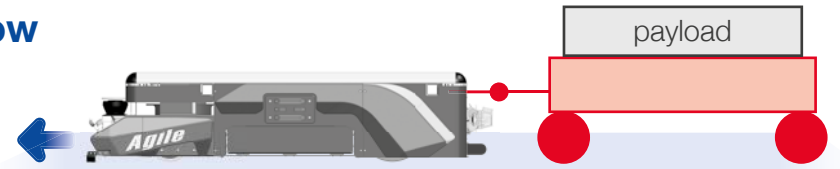
- Complete reconfigurability protects ROI and reduces TCO
- Full compatibility with other Kollmorgen-based AGV systems
- Intuitive programming interface
- Full connectivity and diagnostic Factory 4.0 ready
- Human-robot collaborative (safe)
- Improved safety and ergonomics compared to traditional solutions
- Simplified maintenance



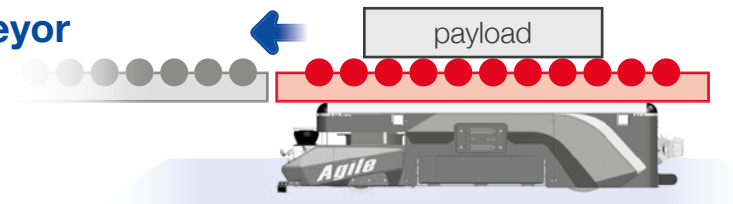
Multipurpose vehicle

The standardized product is highly configurable and can be fitted with different performance accessories as required by each specific application. In other words, the Agile1500 can adapt to accommodate diverse manufacturing needs and factory layouts.

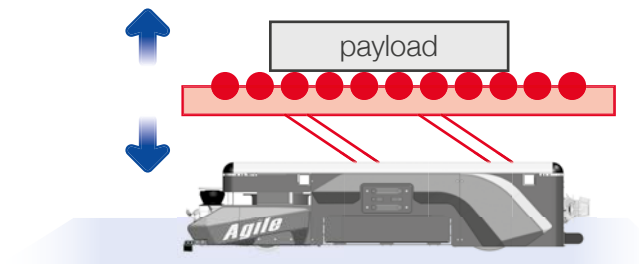
Tow



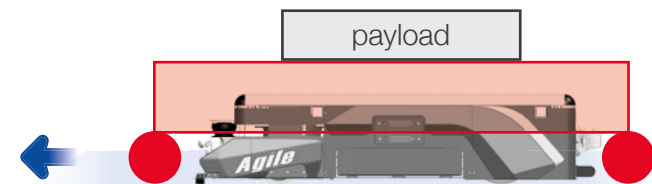
Conveyor



Lift



Cart

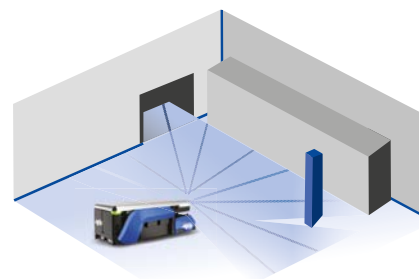


Navigation technologies

Natural Navigation

Natural navigation uses measurements from the laser range sensor to **recognize natural landmarks** such as walls and other surfaces. This makes the production facility completely free of any references installations including mirrors, reflectors, magnetic or colored elements.

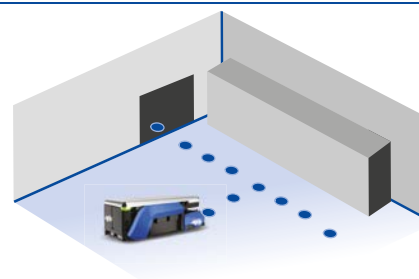
This represents a highly flexible and reconfigurable choice for navigating in different environments.



Laser Scanner

Magnetic Spot Navigation

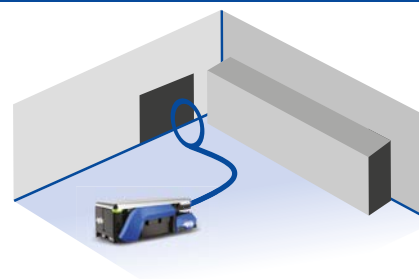
The vehicle navigates by **detecting magnets** in the floor. Typically used in pallet aisles, corridors and for piggy-back AGVs.



Magnetic Sensor
And Magnet Spot

Magnetic Tape Navigation

The vehicle navigates using **magnetic tape** on the floor. Typically used in pallet aisles, corridors and for piggy-back AGVs.



Magnetic Sensor
And Magnet Spot

Multi Navigation

In addition, the **Agile1500** works with **multiple navigation systems** by combining natural navigation with a selected magnetic navigation option, and can switch from one to the other in real time.

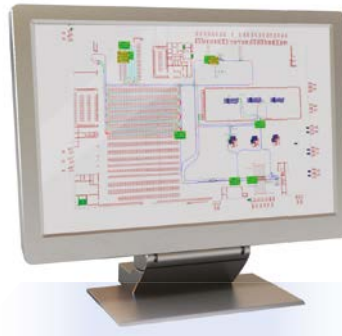
Software

System Manager

It controls the whole AGV system, handles transport orders, allocates vehicles, and selects routes for the different transport assignments. Transport orders are generated through digital I/O or via operator interface (CWay), or are received from a host system (ERP, MES, WMS, etc).

CWay

CWay is the operator interface for the AGV system. It provides an easy way of ensuring that the system works as intended. Order parameters can be modified, and orders can be started or cancelled.



Hardware

Vehicle Controller

It is the heart of the vehicle and supports reliable 24/7 operation.

It can provide a flexible communication solution through CAN/CANopen, Ethernet, RS232/422/485, WLAN and IO. The software functions supervise everything from navigation of the vehicle to communication with the AGV system controller and interfacing sensors and actuators.



Safety

Laser Scanner

The laser range sensor is in charge of detecting any obstacles approaching the AGV. It can adjust the depth of its sight according to the vehicle speed. As a result, it can react properly by decelerating or arresting the AGV's motion before a collision can occur.



Safe Speed Module

This safety device is in charge of monitoring the speeds and the decelerations commanded by the vehicle controller in order to guarantee a safe behavior of the AGV.



Safe PLC

The logic of all the safety features are managed by the Safe PLC, which is connected to the Laser Scanner, Safe Speed Module, Safety relays and to the vehicle controller.



Technical specifications

SIZE AND WEIGHT

External dimensions (LxWxH) [mm] 1404 x 680 x 330

Weight [Kg] 350

SPEED AND PERFORMANCE

Maximum payload [Kg] 1500

Maximum speed [m/s] 1.7

Positioning repeatability [mm] +/-10

Maximum grade [%] 1

Motion Forward at max. speed,
Backward as an option at safe speed

Operating environment Indoor

BATTERY AND POWER SYSTEM

Battery type Maintenance free
Lead (or Litium as an option)

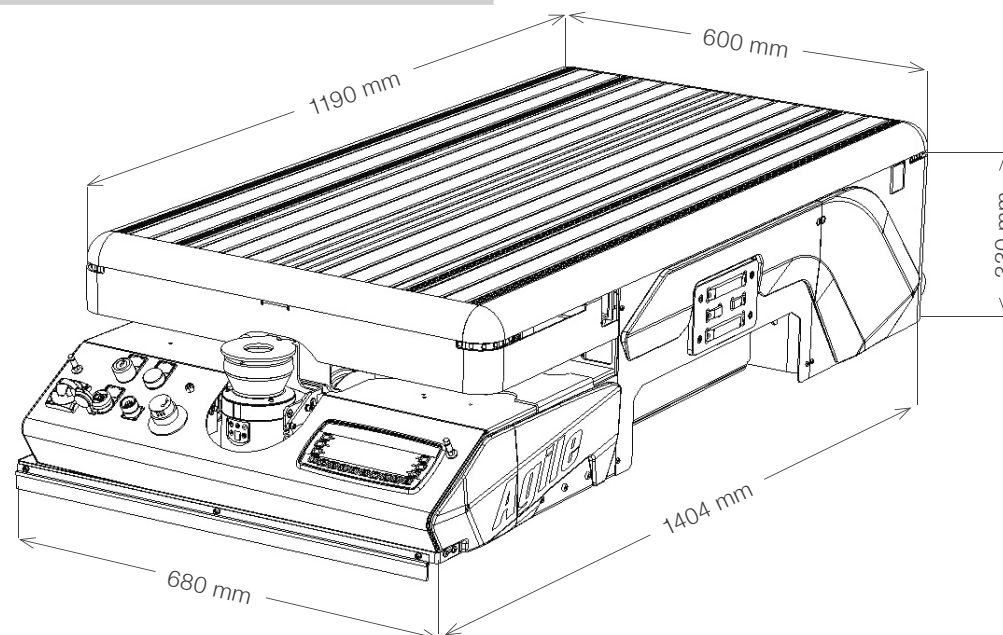
Battery characteristics [V] - [Ah] 24 - 205

Battery autonomy 1 shift for average applications,
charging time depends
on battery type

IMPLEMENTS INTERFACING AND COMMUNICATION

Power supply 24 Vdc Power, 24 Vdc Auxiliary

Communication CANopen



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The illustration does not necessarily show the products in their standard version.

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