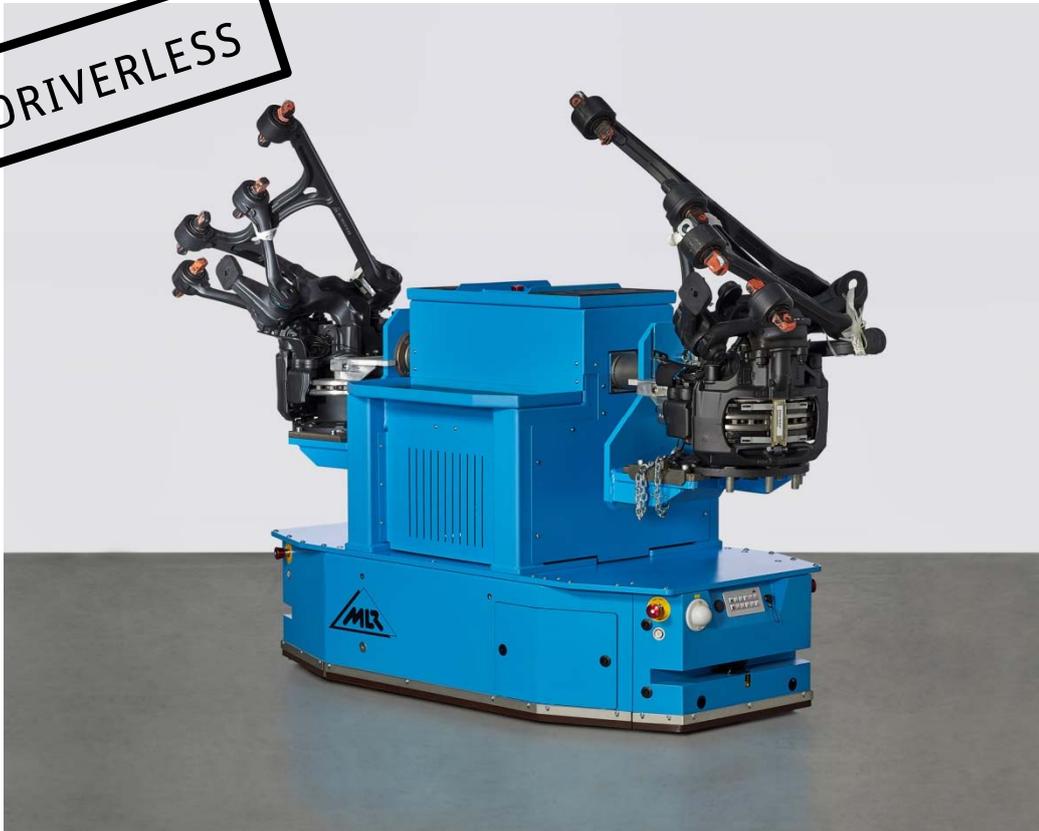


# Caesar P-2,0 Mr

DRIVERLESS



## Type of vehicle

- High-lift fork truck
- High-shift stacker
- Straddle truck
- Telescoping mast stacker
- Spreader stacker
- Drawbar stacker
- Teleskoping fork stacker
- Side shift stacker
- Narrow-aisle stacker
- High-rack stacker
- Tractor
- Drive-under tractor
- Platform truck**
- Other

## Special equipment

- RFID-/barcode reader
- Weighing function
- Metering function
- Roll conveyer
- Belt conveyer
- Chain conveyer
- Flexible load handling
- Cover lift
- Dual operation
- Stainless steel vehicle
- Clean room vehicle
- Outdoor vehicle
- Heavy-duty vehicle
- Pivoting unit**

## Application example ZF Passau

The automotive supplier ZF Friedrichshafen AG has commissioned two new assembly lines for bus axles at its location in Passau. An automated guided vehicle system (AGVS) from MLR handles transport of the workpieces through each of the assembly lines. The 19 automated platform trucks, Caesar models, are equipped with a special fixture for bearing the load of the assembly carts.

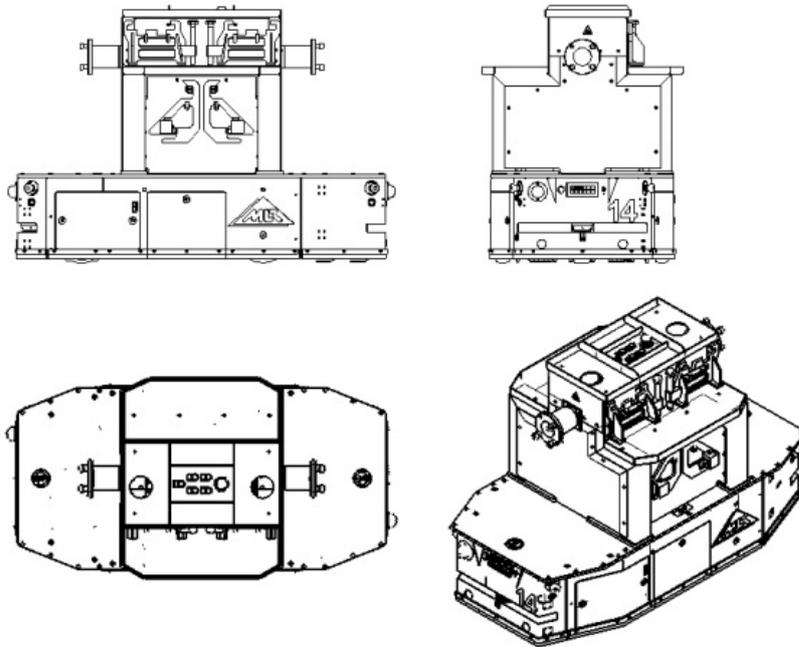
An axle is loaded onto the AGV at a central station at the start of each line, and then cycled through the assembly line. At the end of the line, the axle is removed in order to allow the finished assembly to be dispatched.

The empty AGV then returns to the start of the line and is ready for a new assembly cycle.

Coordination and control of the automated guided vehicles and execution of the transport orders are handled by MLR's own control and management system, LogOS. Transport orders are generated by the customer's host system and transferred to LogOS via a data interface.

The line runs six days a week, 24 hours a day, and about 300 days a year.

# Technical data



## Caesar P-2,0 Mr

|                       |   |
|-----------------------|---|
| Length                | 1,650 mm  |
| Width                 | 900 mm  |
| Height (platform)     | 400 mm  |
| Weight (with battery) | 805 kg  |
| Load capacity         | 2,000 kg  |
| Ground clearance      | 16 mm below the Vulkollan aprons  |
| Speed                 | Semi automated mode: forward: 0.5 m/s; reverse: 0.5 m/s<br>Automated mode: forward: 0.3 m/s; reverse: 0.3 m/s |
| Battery               | Lithium Iron Phosphate battery (LiFePO4) 48 V, 100 Ah   |
| Protective devices    | Laser scanner front, E-stop buttons front and rear,<br>one E-stop button on the load unit                     |
| Appropriate loads     | Front axles<br>Weight: max. 2,000 kg  |