Polaris

Counter balance forklift AGV



- **Proven, safe, and robust design**
- **Compliant with EU safety standards**
- **User-friendly interface**
- **Short lead time**
- **Competitive price**

About

The Polaris is an Automated Guided Vehicle (AGV) from AGVE, a company with over 40 years of innovation in safety and reliability. Designed using proven technologies and parts from leading suppliers, the Polaris offers a cost-effective solution for material handling without compromising on performance. While standardised, it allows for customisation to meet specific operational needs. Built to international and AGV industry standards, the Polaris ensures safe, reliable, and efficient automation for your business.

Features

Counterbalance

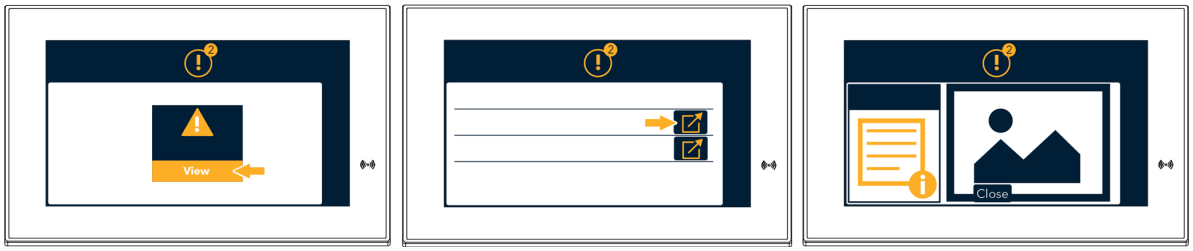
The counterbalance forklift is the perfect solution for businesses seeking flexibility and efficiency. It handles uneven and oddly shaped loads with ease, ensuring safe and stable transport. It's also capable of picking and dropping materials directly onto conveyors and can also pick loads from the floor.

Laser-guided navigation

With laser measurement, the movements of the Polaris are extremely accurate. A navigational laser emits a continuous, modulated beam of light in a 360-degree pattern, which interacts with strategically placed reflectors in the operational area. By analysing the reflected signals, the system precisely determines the position of the Polaris in real time.

User-friendly display

Designed with you in mind, the Polaris display introduces a brand-new user interface, delivering an intuitive and user-friendly experience that makes operation effortless. The interface is customisable, allowing users to personalise it with their own logo and brand colours for a consistent visual identity. Additionally, the display is intelligently adapted to different user roles—such as operators and service technicians—ensuring that each user sees only the most relevant information and controls, simplifying workflows and enhancing efficiency.



Software

The Polaris is designed to be used with Smoova, AGVE's proprietary, web-based fleet management system built for seamless integration with customers' existing infrastructures. Smoova offers complete AGV fleet management and supports multi-level user login functionality, making it highly customisable to individual operational needs. Whether accessed via PC, smartphone, or tablet, its user-friendly interface ensures efficient planning and coordination of vehicle operations. With optimised order and route handling, easy-to-configure statistics, and robust workflow optimisation capabilities, Smoova delivers significant time and energy savings.

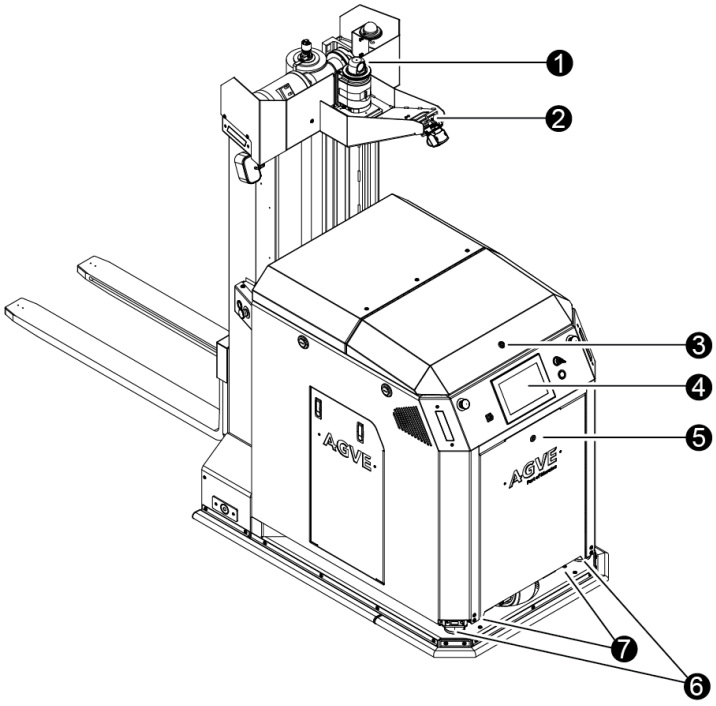
Options

Our basic Polaris model offers a solid foundation with standard, reliable features. However, we understand that every customer has unique preferences, which is why we offer the following customisation options:

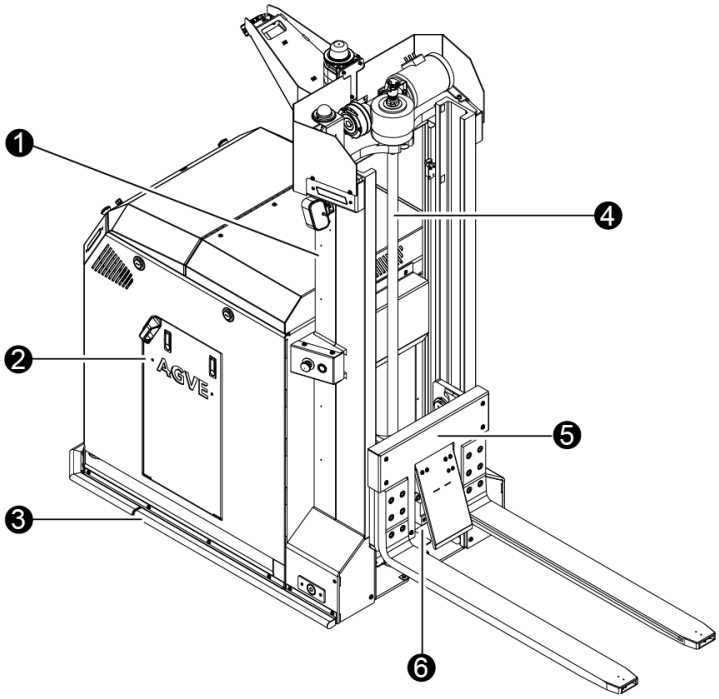
- Battery
- Charger
- Colour
- Web camera
- Safety package
- Service package
- Own logotype
- Display language and theme
- Personalised screensaver and menu colours

Vehicle exterior overview

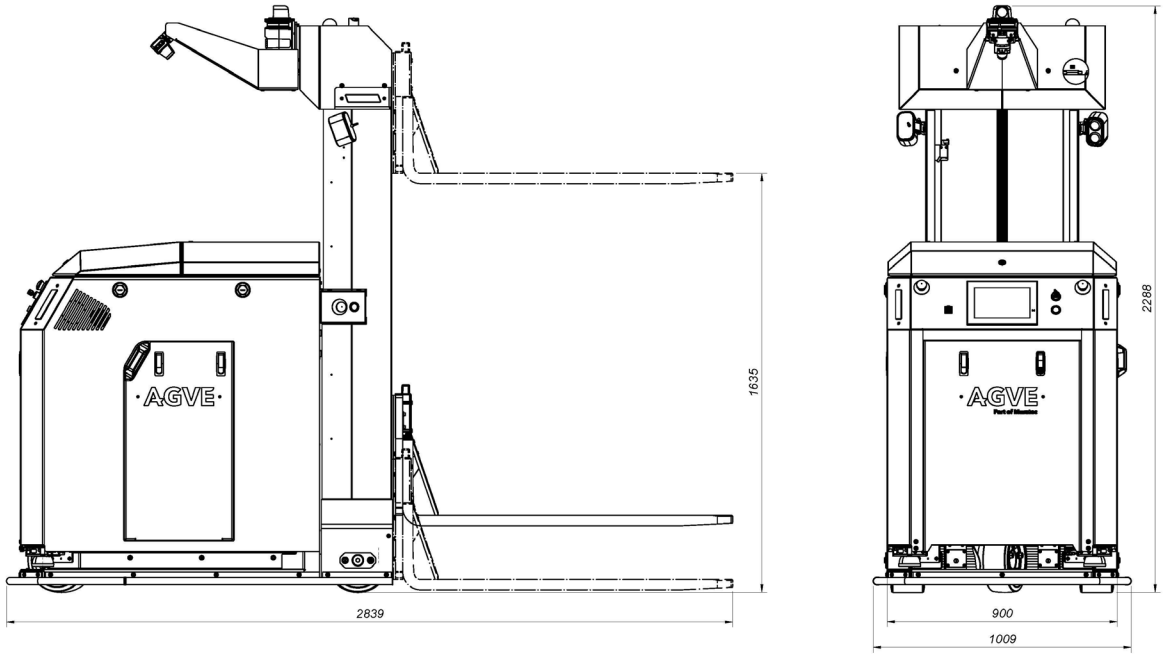
Item	Description
1	Navigation unit
2	Top down scanner
3	Electrical cabinet
4	Control panel
5	Drive unit compartment
6	Front safety scanners
7	Current collector



Item	Description
1	Mast
2	Battery unit
3	Bumper
4	Lift unit
5	Fork carriage (with forks)
6	Rear safety scanner



Dimensions (mm)



Technical specification

	Base model	Options
General		
Type	Counterbalance forklift	
Load capacity	1200 kg, COG 650 mm	
Lift height	50 – 1635 mm	
Lifting system	Electrical ball screw lift	
Mast type	Simplex	
Pallet type	Euro pallet	
Operating temperature	Average: +25 C° Max short term (1h): +40 C° Lowest: +5 C°	
IP rating	IP20	
Navigation	Laser	
Colour	Chassis RAL 7037 (dusty grey) or RAL1023 (traffic yellow). Mast, fork carriage and misc. parts RAL 7021 (black grey)	Any custom colour
Max speed forward	1.5 m/s	
Max speed reverse	1 m/s	
Forward acceleration	0,5 m/s^2	
Reverse acceleration	0,5 m/s^2	
Drive unit	Vertical drive, AC motor	
Steering unit	DC steering motor	
AGV length	2952 mm. Incl. bumper.	
AGV width	1010 mm. Incl bumper.	

	Base model	Options
AGV height 1	2288 mm. With nav-laser	
AGV height 2	2236 mm. Without nav-laser	
Wheelbase	1088 mm	
Turning space	Approx. 3.2 m	
Aisle width	Approx. 3.5 m	
Battery and charging		
Battery	Lead acid 48V/ 315Ah (Open cell) or Lead Acid 285 Ah (Closed cell)	Lithium-ion 105 A Lithium-ion battery 210 A
Charging system	Automatic charging	
Charging power	Up to 7 kW. 160 A/48 V	
Charger placement	On floor, next to charging station	On wall/on floor stand
Fork		
Fork	For EUR	
Load detection	Mechanical	
Fork tip sensor	Digital photocell	
Safety		
Emergency stop	4 buttons	
Safety scanner field	Safety Laser (2 in front, 1 in rear)	
Light indicators	Warning lights on mast and front/side	
Sound indicator	Mp3 player and speaker	
System		
Operating system	Linux	
Display	Touch screen	
GUI	AGVE theme	Own theme
Fleet manager	Smoova (AGVE)	
Documentation		
Operator manual	Local language and English	
Service manual	English	Local language
Spare parts and drawings	English	Local language

Other options

	Item	Note
Machine safety		
Machine safety	Safety bumper	Front and sides (not rear).
Machine safety	Top down scanner	Front
AGV Movement indicator	Bluespot	Front and/or rear.
AGV Movement indicator	Blueline	Sides and front
Webcamera	Front, Back, Front & Back	
Lifting		
Lifting eyes	Kit of 4. M20 attachment	
Battery and charger		

Fast Charger	- for open cell lead battery - for closed cell lead battery	
Charger för Lithium-ion battery		
Tools		
Rescue device	To move the AGV manually	
Customisation		
GUI language	Any language	
Customer logo on AGV	Sticker on side of AGV	
Name on AGV	Personal name	
Service and support		
Service package	See separate document	
Support package	See separate document	

About AGVE

The AGVE Group is a leading provider of Automated Guided Vehicles (AGV) and control devices, having more than 70 dedicated employees working on AGV automation worldwide. We keep the AGV design and the manufacturing in-house and sell AGVs, systems, and services all over the world. From single components for automated guided vehicle control, to fully integrated material handling systems, we offer a wide range of products featuring standard, as well as custom built, vehicles.

AGVE was one of the first companies with PC based AGV control and even today we develop and manufacture our own electronic platform for Automated Guided Vehicles.

We strive to be close to our customers and have sales, support, and services available worldwide.

AGVE Group customers are highly diverse and operate across many different business sectors, ranging from companies who design and produce their own Automated Guided Vehicles using our controls, to many companies outside the material handling sector that buy complete turn-key systems and all-in service & support.

Welcome to the world of AGVE.

Let's make your move!

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