



AVT Europe brings innovation in the transport industry

AVT Europe NV – a Belgian SME that is part of the VINCI Energies Group with worldwide activities in innovative heavy load handling solutions –introduced SHIFTER a couple of years ago. This state-of-the-art technology is a dual transport system on wheels, which is able to move heavy loads with big dimensions.

Shifter: the long awaited alternative for air cushions

As customers became more demanding and applications became more intensively used, the 40 year old air cushion technology proved no longer adequate. A need for external compressed air supply, extensively long hose connection and flat floor surface emerged, which enforced us to seek an alternative.

AVT invested quite some R&D and testing in the development of a low cost maintenance and wheel based system that moves loads safely, quickly and accurately - indoors as well as outdoors. Over the last five years, AVT Europe produced more than 60 vehicles, making it a world leader considering this new technology.

Precise and efficient movement

Our advanced guiding and measurement system links two or more cars together in a virtual manner. This way, no physical connection is needed at any predetermined distance, with a maximum of 25 meters. Furthermore, loads up to 100 tons can be moved with an accuracy of 10 mm in an omnidirectional way.



When coupled, both cars behave as one unit, which makes the drivability and user interface highly convenient. Each set is equipped with two wireless remote controls for manual and semi-automatic control. Each car can be used independently.

In dual mode, the transporters will follow each other and progressively mirror any movement that is conducted by the operator. Shifter uses advanced positioning: highly sophisticated lasers continuously measure and guard the angle and distance

and correcting any deviation. As an additional safety feature, we can integrate a floating table function if the application requires zero stress. The floating table prevents possible misalignment (while driving over an obstacle, for instance), making sure the payload is 'floating' on top of both vehicles.

The same principle applies when it comes to lifting loads. Both tables lift (hydraulically, pneumatically or with spindles) the load simultaneously and actively monitor the lifting stroke - applying corrections if necessary.

Shifter uses a color guided optical sensor to ensure the correct transition path. This feature can also be used to automatically guide the transporters around the factory, even in empty drive mode. To this end, the user needs to apply a colored line/dot on the floor. By using the remote control, Shifter will follow the line: used as a single as well as coupled in dual mode.

AVT Europe brings the perfect transport solution for applications within the railway and aerospace industry, defense, shipbuilding, steel and power industry and construction. We'll be hearing about them... Check www.shifter-avt.com or send your message to info@a-vt.be for more information.

info

Pictures: AVT

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QR Code leads to background information on the SHIFTER

▶ Shifter moving a railway car at NS, Dutch Railways.

▶ Shifter can be operated in single mode or in twin mode through a virtual link.

between the two cars. The 2D scanning technology enables the 'AUTO FIND' mode: regardless of the distance, the cars will find each other. Even better: they also will align with each other in a perfect longitudinal line - all due to a simple joystick movement or click on the button.

The set is equipped with a towing mode function. Optionally, an automatic centering device on the pallet and second vehicle can be foreseen in longitudinal direction and in Yaw rate measuring displacement

