



PEI Mobility

Bellows and Articulations for Buses: Innovation in Motion

Located in Emilia-Romagna, in the heart of Italy's Motor Valley, PEI Mobility was born in a context of excellence and over the years has developed a wide range of products for interconnection, becoming a key partner for leading manufacturers of articulated buses.

Years of activity and success in the sector have led PEI Mobility to have sold 10,000 bellows in Europe and worldwide to date, resulting in being a reference partner in a high-level position on the international scene.

Made with high-tech materials, our bellows feature patented systems that ensure powerful fastening to the carriage body to guarantee ultra-smooth movement, greater reliability and increased on-board comfort. Flexibility and efficiency are constantly supported by extensive engineering expertise, IATF automotive certification, stringent tests and calculation procedures, together with continuous research and development activities.

PEI Mobility bellows are made of UV-resistant copolymer complying with the highest safety regulations in the automotive field. A wide range of colours, in addition to the traditional grey, allows extensive customisation. The translucent fabric option makes the vehicle's interior more luminous, greatly improving passenger comfort.

Over the years, PEI Mobility has developed and produced several innovative systems, many of which have been patented:

- The connecting clips between bellows: the system allows quick and easy installation, in addition to being a reliable and custom-tailored product
- The fastening of internal bellows to the body and central hoop: this system allows fast replacement and gives great stability to the structure
- The innovative external bellows fixing system to the vehicle body: it allows quick installation, which is unique on the market: bellows become extremely easy to inspect and maintain
- The special zips reduce the tension of the bottom-





- part fabrics and ensure a more effective sealed area
- The clip system for the bottom is easy to install and is reliable

The articulation joints by PEI Mobility are designed to guarantee safe operation on the road, optimising the vehicle's dynamic performance under all operating conditions and are suitable for all kinds of buses. Specific control systems ensure vehicle stability when driving, guaranteeing passenger safety. The moving parts are designed to improve on-board comfort and smooth driving.

Digital mechanical simulations, dynamic analyses and durability tests on the road are intended for stressing the articulation joints to the limit, in order to guarantee the absolute reliability of the vehicles on which they are fitted.

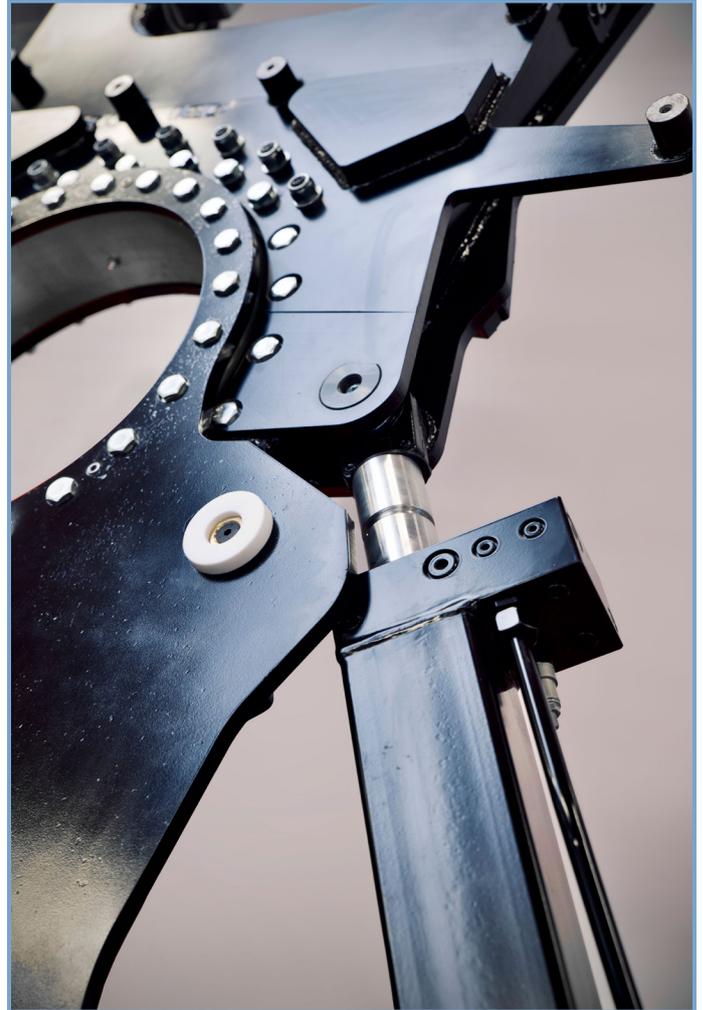
The dynamic simulation in vehicle design performs an important virtual analysis and testing tool that has been supporting physical tests made in automotive industry for a long time now.

In particular, the sector of urban bus design is a theme of great interest for research in the automotive world, both in terms of features' performance and considering safety and comfortable mobility for passengers.

In this specific context, the R&D department of PEI Mobility has been working for a long time now with special state-of-the-art multi-body software, to create solutions whose primary aim is to optimise road transport. Through these cutting-edge technologies and thanks to an experienced and qualified team of engineers, PEI Mobility anticipates the market needs by developing high-tech products in terms of performance and safety. Therefore, dynamic simulation allows PEI Mobility to examine the performance of the hydraulic damping system by actually predictively testing each bus on which it will be installed, with the imperative to meet the safety parameters established by the most authoritative safety certification bodies.

PEI Mobility thus commits to solving one of the main issues related to the design of buses, the event known as 'jack knife', typical for articulated vehicles.

In this field, this term represents a dangerous operating condition that leads to loss of trailer control and compromises maintaining the vehicle trajectory.



Bus Design & Interiors

The constant research and development activity of the PEI Mobility engineering team aims towards increasingly sustainable urban mobility, with solutions designed to guarantee maximum passenger comfort and safety, as well as resistance and ease of maintenance of bus components.

PEI Mobility will present important new products at Busworld in Brussels from 7 to 12 October, join us at **Hall 6 Stand 676!**

www.peimobility.com



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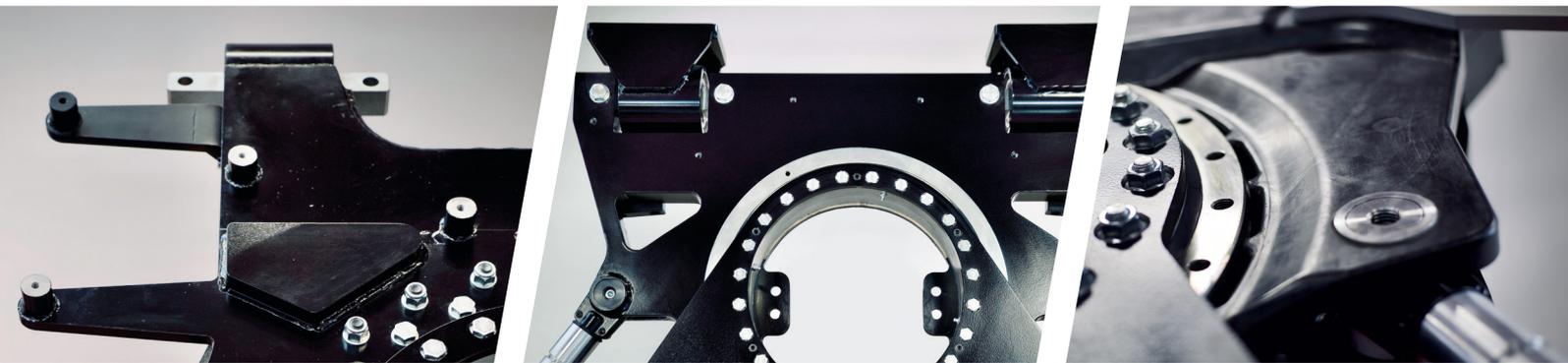
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