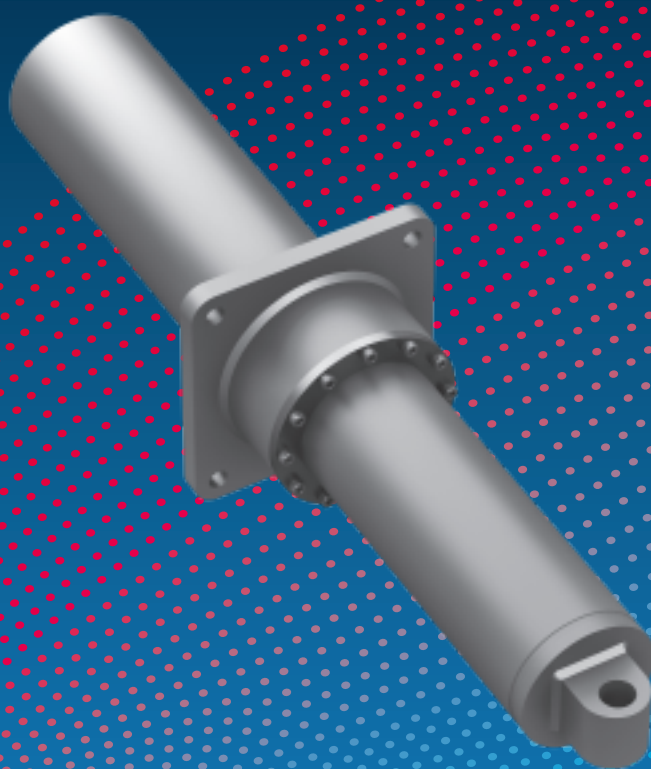




Modular system

ZF Crash Absorber
for trams



More safety for trams

ZF offers chassis technology which effectively increases passenger comfort and safety. One example is the ZF crash system that is used to ensure rail vehicles meet standard collision safety requirements (EN 15227).

Temperatures and environmental conditions can be very different and that is what ZF Crash Systems are designed for. ZF is setting standards and offers perfectly tuned crash absorbers for use worldwide.

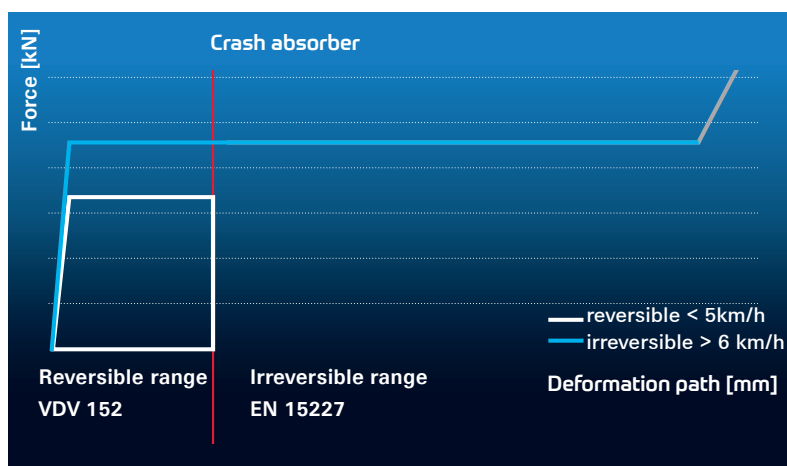
The ZF Crash Absorber for trams features very low weight, is highly efficient and generates a constant force level. They increase passive passenger safety in the event of a collision. This modern, standard system is based on hydrodynamic impact absorbers mounted on the vehicle's front end. They absorb the impact forces reversibly or irreversibly depending on the force of the collision.

Technical data

Reversible force level	60 - 200 kN
Irreversible force level	100 - 300 kN
Stroke	50 - 350 mm
Energy absorption	15 - 105 kJ
Weight	starting from 35 kg

Highlights

- Robust design
- Function confirmed a million times over in the passenger car
- Protected against environmental impacts
- Stable temperature
- Suitable for steel and aluminum rail cars



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