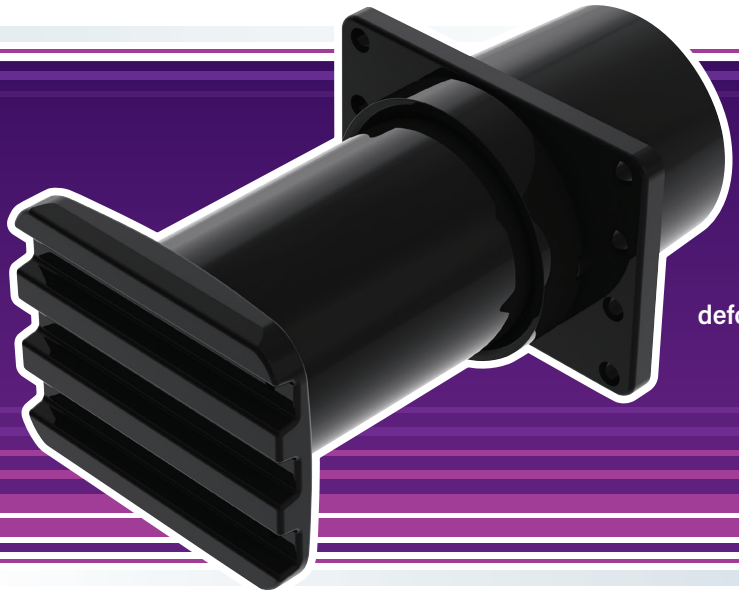
Large Anti Climbers

Rail

Standard range of large anti climbing devices. Providing more cost effective solutions with shorter lead times, to meet customer project requirements.



Up to 750kN deforming force

Large Anti Climbers

Oleo anti climbers have benefited from extensive dynamic testing. Static compression tests alone do not realistically reflect the performance characteristics during a collision.

Without anti climbers one vehicle would override another in a serious accident. Anti climbers contribute to the crash worthiness of rail vehicles by absorbing impact energy as collision forces rise following coupler overload, in line with International Standards such as EN 15227.

Oleo's large anti climber range has been specifically designed to limit vertical movement even in offset impacts, and promote a controlled longitudinal stroke.

Anti climber contact faces lock together prior to any vehicle structural deformation and minimise the tendency of vehicles to climb or override.

Oleo was involved in the development of the first anti climbers in the 1990's. End on collisions present the greatest hazard to passengers and most fatalities happen at speeds of less than 60km/h. Oleo anti climbers are successful in the prevention of overriding and crash energy management.

Product Details

New standard range of Oleo Anti Climbing Devices:

- Low Force; from 400kN.
- High Force; up to 750kN.
- Fully customisable force characteristics at no extra cost.
- Standard fixed length and design per stroke.
- Extensive range of available strokes.
- All units are tested by Oleo with validated mathematical models in accordance with EN15227. Available with Radioss and LS-Dyna finite element models.
- The system used by Oleo for the mathematical modelling of crash scenarios is approved by a European Rail Authority as being accurate, appropriate and properly controlled.
- Reduced manufacturing lead-time.
- Standard Anti Climber head profile and Mounting Plate design.

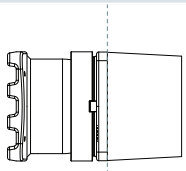
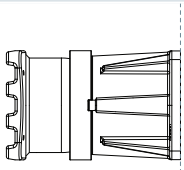
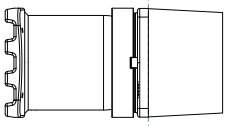
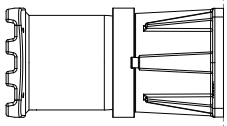
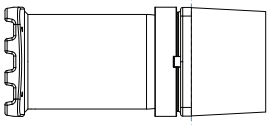
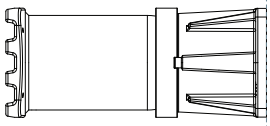
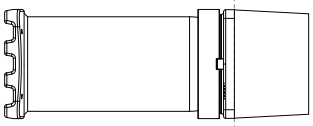
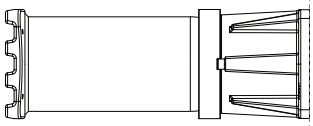
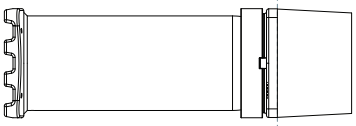
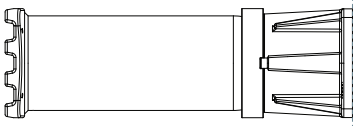
Product Advantages

- Performance can be fully optimised with Oleo 1D Train™ at no additional cost.
- Consistent and predictable deforming forces across the complete stroke.
- Controlled energy absorption throughout the total stroke.
- Near 100% energy absorption efficiency.
- Standard mounting options for ease of customer selection.
- Designed to withstand vertical offsets (±40mm from axis).

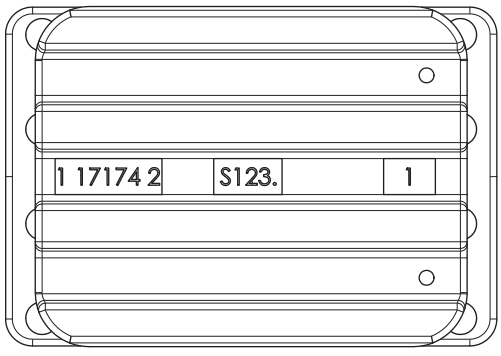
Applications

- Metro
- Light Rail
- Locomotive & Freight
- High Speed
- Mainline

Large Anti Climbers Data

Deformation (non recoverable) stroke (mm)	**Front Mounted** Large Anti Climber Range	Maximum Force Rating Up to 750kN	**Rear Mounted** Large Anti Climber Range	Maximum Force Rating Up to 750kN	Energy Absorption (kJ)	Maximum Bending Force (kN)
100		AF10		AB10	77	150
200		AF20		AB20	150	
300		AF30		AB30	224	
400		AF40		AB40	299	
500		AF50		AB50	373	

Large Anti Climber Head



Dynamic impact for Oleo Deforming Large Anti Climber