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Asociación, Investigación y Desarrollo del Acero Inoxidable

Safety in high speed trains

High speed trains allow passengers traffic in a quick, safe and efficient way. Although stainless steel is already very active in this sector, and it is commonly used in coaches due to its high mechanical properties and high impact resistance, we are focusing in applications that are more detailed but as important as railways catenaries.

Railway catenaries are designed to cross time and all type of weather conditions. Therefore, stainless steel is the necessary choice. No other material can fulfil all the required conditions: long lasting, mechanically resistant, reduced maintenance and economical. As everybody can imagine catenaries require high strength fasteners able to resist vibrations when a train is passing by. In addition, think about a very busy line with several trains per hour and thousands of crossings per year.

Moreover high corrosion resistance is mandatory to decrease inspection and maintenance costs and improve security. Should a catenaries line breaks and all the railway network and traffic have to stop, the impact on passengers traffic and freight transport is considerable.

So high quality stainless steel fasteners are the must. A4 (AISI 316L) is the logical choice for such strategic application and the property class 80 is necessary for security.

SNCF, Société Nationale del Chemins de fer Français, has trusted Ugivis, stainless steel fasteners manufacturers, to meet these high demands.

This is a clear example of how small stainless steel details, many times ignored, make everyday life easier and safer.

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