



FASTENERS FOR RAILWAY PROJECTS

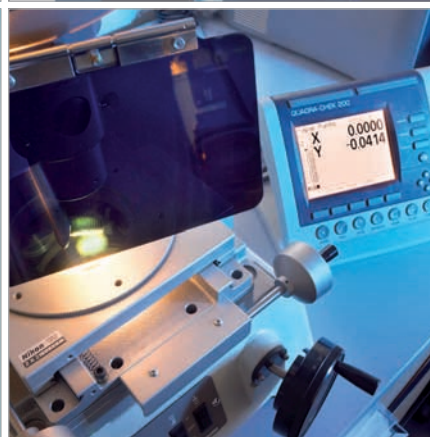
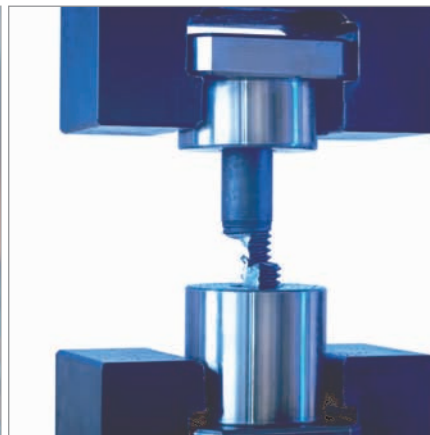
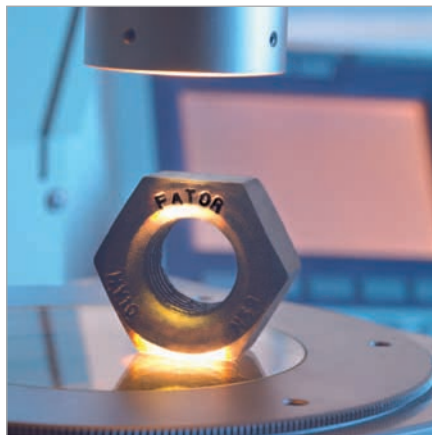


TORNILLERÍA INDUSTRIAL

founded in 1979, specialises in meeting the needs of a very diverse range of industrial sectors in both the Spanish and international markets, offering an extensive range in general and specialized nut and bolt products.

We are a global reference point as a supplier of nuts, bolts, washers and high resistance special fasteners.

The quality of our products and the very high degree of collaboration established between our workforce, associates and market, allow us to offer a reliable and efficient service that guaranteed client satisfaction.



Our modern warehouse with an automatic retrieval racking system for close to 7.000 pallets allow us to co-ordinate stock averaging some 6.000 tons of products.

Our powerful computerised stock control system guaranteed rapid response and dispatch of all our customer's orders.

t-bolts

screw spike

clips

spring washers

track bolts

studs

inse

LABORATORY

The endeavours of Fator, to deliver excellent product quality, does not stop with the extensive manufactory process controls, and quality tests at the manufacturing plants, but reensures the certified quality of its' products, and the mechanical specifications, in our own inhouse laboratory, in order to comply 100% with the necessary standards, retesting all incoming material issuing final certification. All Fator products carry traceability codes, to be able to trace its' complete manufacturing process,

from raw material, to finished product.

We also realize customized product tests, as for example, fatigue tests, failure analyses, impact tests, bending and wedge tests, etc, on any single or assembled product. Our quality team supports customers with technical guidance, in reference to, material testing, steel types, assemblies or applicable standards advise.

Our laboratory is equipped with the following testing means:

Tensile test machine, traction and compression force 600kN. Video extensometer, used during tensile test to calculate the yield strength and elongation.

Sparking equipment for chemical composition analyses, for carbon and stainless steel.

Hardness tester Hrc-Hrb. Profile proyector for dimensional control.

Metalographical cutting machine for sampling.

Magnetical coating thickness measuring device.

Go-no go gauges for dimensional control.



PRODUCTS

We are a professional manufacturer and distributor of fasteners for rail fixings. For concrete as well as wooden sleepers for metro as well as high speed ballasted and non-ballasted tracks.

We also supply fasteners for various rail catenary electrification systems as well as fixings for tunnel construction.



hexagonal bolts

hexagonal nuts

plastic ferrules

washers

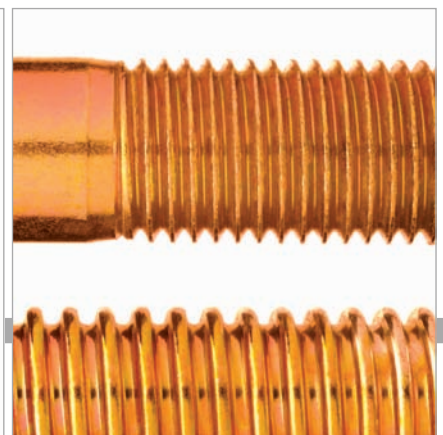
plastic guides

Our fasteners are screws, bolts, nuts and washers as well as springs. Our main customers are the designers and producers of rail fastening systems.

Our products are made in compliance with UIC, NF as well as under EN standards.



Apart from our products we can provide technical assistance and are jointly involved in R&D with our customer and partners in order to cooperate in the development of improved rail fixings.



le plates square head bolts

METRO TRACKS

- Madrid Metro
- Barcelona Metro
- Mallorca Metro
- Sevilla Metro

HIGH SPEED TRACKS

- South Korea
- Morocco
- France



forged pad

clip plate

elastic clip

square nuts

eye bolt

nylon plastic

STANDARD PRODUCTS

- Ave Trinidad Tunnel in Barcelona
- RENFE Tunnel Girona



TUNNEL CONSTRUCTION

- New line 9 by Metro Barcelona
- RENFE Tunnel Terrassa
- RENFE Tunnel Sabadell
- Tunnel Ave Sagrera-Sants

CATENARY & ELECTRIFICATION

Our products are in all Administrador de Infraestructuras Ferroviarias (ADIF) catenaries, last projects are:

- Vilanova i la Geltrú (Sant Vicents de Calders Station) in Barcelona
- Valencia (Canal acceso AB Levante)





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