COLD-HEADING WIRE FOR HIGH-QUALITY AUTOMOTIVE SCREWS

Regional supply chains, top quality, and scalable supply for the automotive industry



AT A GMANCE	
Industry	Automotive
Product	Cold heading wire
Application	Screws for automotive applications (strength class 8.8, expansion to 11.9 planned)
Special Feature	Transition from an intercontinental to a European supply of raw materials
Customer Benefits	Premium quality combined with short supply chains, high supply reliability, and lower transport-related emissions

INITIAL SITUATION

As a European manufacturer of automotive bolts, the customer wanted to regionalize its raw material supply, which had previously been sourced from Asia. Against the backdrop of increasing demands for supply reliability, regional value creation, and resilient supply chains, the customer pursued a “Local for Local” approach.

The goal was to establish an efficient European supply chain with consistent quality, process reliability, traceability, as well as reliable supply and short response times.

THE CHALLENGE

Requirements for the raw material:

- High degree of purity
- Flawless surfaces
- Stable material properties
- Reproducible production quality
- Complete traceability

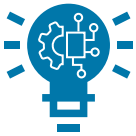
For cold solid forming, both internal and near-surface defects had to be reliably eliminated.

OUR APPROACH

- Manufacturing via the modern production route (CC4)
- Defined purity requirements
- Ultrasonic testing
- Eddy current testing to detect near-surface defects
- Controlled manufacturing parameters for consistent quality

> **“The combination of ultrasonic and eddy current testing reliably detects and eliminates both internal and near-surface defects.”**

FROM INITIAL SAMPLING THROUGH QUALIFICATION TO A SUCCESSFUL SERIES PRODUCTION RAMP-UP



Material development



Material testing



Processing trials



Qualification



Series delivery

CUSTOMER BENEFITS

TECHNICAL	ECONOMIC	PARTNERSHIP-BASED
High degree of purity	Lower inventory levels due to shorter lead times	Shorter transport routes
Automotive-compliant quality assurance	High flexibility in response to changes in demand	Regional value creation
Reproducible material properties	Reduced logistics costs	Lower transport-related emissions
High process stability in series production	Scalable supply	High supply chain transparency

TYPICAL APPLICATIONS

AUTOMOTIVE
Class 8.8 bolts
Structural and chassis applications
Powertrain components

Strength Classes:

8.8-11.9

Following the successful establishment of grade 8.8, we plan to expand to grades 10.9 through 11.9 and to qualify additional materials and dimensions.

Top quality, short supply chains, and scalable supply from Europe.

This project demonstrates how the highest quality standards can be combined with the advantages of a regional supply chain.

Benefit from our experience in the cold heading segment. Our experts will support you in selecting, developing, and qualifying your material solution.

More details & contact us

voestalpine Wire Technology
www.voestalpine.com/wiretechnology

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ONE STEP AHEAD.