



# Welding Certification Services

## Alstom Transport India Case Study.

### Executive Summary

Welding procedure qualification verifies the compatibility of materials and techniques to produce welded components that are in compliance with welding codes and have acceptable mechanical properties. In order to achieve an accurate welding procedure specification, TÜV Rheinland helps customers to develop and assess welding procedures on a qualification weld. TÜV Rheinland provides consulting and training, allowing companies to achieve their goals in meeting industry standards for qualification of welders and welding procedures.

TÜV Rheinland's Welding Certification service offers certification levels 1 to 2 for the welding of railway vehicles and components. Welder Qualification is according to ISO 9606-1/ISO 9606-2 standards, Operator Qualification is as per ISO 14732 and Welding Procedure Qualification according to ISO 15614 series. We also provide training for internal VT inspectors as well as qualification and certification of NDT personnel.

TÜV Rheinland is committed to the safety of rail systems and offers development studies, project management, and independent safety assessment services to a wide range of clients, including governments, metro owners, rolling stock manufacturers, systems and product suppliers, transport operation companies, and traffic authorities.

### About Alstom Transport India

Alstom Transport India Ltd. has established a strong presence in India. Currently, the company is executing metro projects in several Indian cities including Mumbai, Chennai, Kochi & Lucknow and internationally in Montreal & Sydney where it is supplying Rolling Stock manufactured out its state of the art facility at Sri City, Andhra Pradesh.

Alstom manufactures railroad equipment including:

- Metro Cars
- Propulsion & Control Equipment
- Transportation Systems, and
- Rail Control Systems

Alstom has been investing heavily in India to produce world-class components, design, research, and development not only to serve the domestic market but the rest of the world as well.

### Alstom's Requirements

As per the application of European Standard DIN EN 15085, Proof of Manufacturer Certification is an essential step while obtaining access to international markets. This certification testifies to the strict safety requirements within the railway sector.

Manufacturer Certification is based on factory inspection/ audit during which fulfillment of the requirements regarding processes and personnel have to be verified.

In order to cater to domestic and international markets, Alstom Transport India wanted to:

- Meet the requirements of the standards specific to new rail vehicle components and repairs
- Gain access to the European market for rail vehicles and rail vehicle components
- Qualify their company personnel and plant according to EN (European Norms) & ISO (International Organization for Standardization) norms/ standards

