

ExperRail™



METALLURGICAL
EXPERTISE

DESIGN
& TESTING

STANDARDI-
SATION

METALLURGICAL TEST CENTER - MTC

- **MTC center comprises a fully new workshop of 700 m²** with a machining shop for sample preparation (sawing, oxygen cutting, machining, grinding, drilling and electro erosion cutting of notches are possible), a testing and a metallurgical laboratory associated to chemical analysis facilities.
- **MTC center is composed of technicians and engineers** with metallurgical skills and railway experience of more than 20 years.
- **Wheel and axle defect analysis, steel shop process, mechanical tests can be performed in our lab.**
- **Steel chemical analysis, harpy impact tests, pre-cracking equipment, tensile tests and Brinell hardness, micrographic examinations** are available according to the main Railway European standards EN13261, EN 13262, and testing standards as ASTM E399, EN ISO 6892-1, EN ISO 148 - 1 and ISO 6506-1.
- **Accreditation according to EN ISO - 17025** in progress

CONSULTING

Product standardisation, project management, consulting in European certifications and homologations, supplier evaluation, LCC (Life Cycle Cost).

TESTING/MEASUREMENT

Non-destructive testing expertise, acoustic characterization, inspection specification.

DESIGN

Full wheelset design, acoustic studies (STARDAMP, ANSYS ABAQUS), finite element analysis, failure analysis.

METALLURGY

Metallurgical defect analysis, mechanical properties evaluation.



A WIDE RANGE
OF TECHNICAL SERVICES



WWW.VALDUNES.COM

ExperRail™



BACKGROUND

A wide range of Engineering services are provided by MG-Valdunes. Our technical resources are dedicated to devising innovative solutions. Many railway projects for passenger and freight rolling stock **have been designed with MG-Valdunes support.**

SOLUTIONS

- Extensive experience of railway products.
- Inspection & ND testing experts.
- Mechanical & metallurgical laboratories.
- Relationships with Railway companies.
- Engineering and Design Department.

AN ACTIVE RAILWAY PARTNER

- Member of the Competitive i-Trans French rail hub.
- Member of the IRT Railenium.
- Active member of many Railway Associations (FIF, AIF, ...).
- Partners of collaborative Research projects (Euraxles, Stardamp,...).
- Normative expert (CEN, TSI, ISO, ...).
- SwitLab laboratory.



OUR BUSINESS SPIRIT
INNOVATION & PERFORMANCE

OUR MAIN REFERENCES

- Wheelset design (worldwide).
- High Speed wheel design (Talgo, Hyundai Rotem).
- Metallurgical expertise (RATP, ...).
- Non destructive testing, wheel / axle defect examination, residual stresses (Eurotunnel, Alstom, Matisa...).
- Resilient wheel design (Alstom, Bombardier, Siemens...).
- Overheated wheels NDT inspection (Matisa, Alstom, RATP, ...).

