VMS™
Valdunes Mountain Safety

VMS™ IS AN EXCLUSIVE MG-VALDUNES’ PRODUCT

Wheel especially designed and developed for operations under high thermal stresses.

Low stress level in the rim and reduction of rim deflection.

Decreased maintenance downtime through increased wheel life and quality improvements.

VMS™ wheel tyres equips all VALD25, VALD 22 and VALD 20 wheelsets able to replace all the standard parts of the market.

100 % conformity with new European standards: EN 13979-1, EN 13262 and WAG TSI.

OVER 200’000 WHEELS
IN SERVICE IN THE WORLD

WWW.VALDUNES.COM
BACKGROUND
Due to high tensile residual stresses on the traditional ORE freight wheel rim, failures appeared, especially after drag braking on mountain lines. The VMS™ concept was developed to solve the problem and thus increase safety levels.

SOLUTIONS
- New low stress geometry designed using CAD & FEA. (From 630 to 1’000 mm diameter).
- TSI approved and Railway technical qualification.
- Efficiency checked on bench and field testing.
- Safety improvement: toughness level under control.

RESULTS
- 30% greater resistance against catastrophic brittle fracture.
- 50% reduction of the lateral rim displacement.
- Absorbed braking power up to 50 kW for 45 min.
- Noise reduction with the use of a composite brake shoes.

BENEFITS
- Improved safety.
- Increased wheel life.
- Reduced downtime.
- Reduced life cycle cost.
- Improved and controlled braking performance.
- Noise reduction available.

OUR MAIN REFERENCES:
SNCF (France), SNCB (Belgium), DB (Germany), SBB (Switzerland), Ferronor (Chile), ONCF (Morocco), Transnet (South Africa), DSB (Denmark), Renfe (Spain), ÖBB (Austria), Comilog (Gabon)…
Main European private fleet owners.