

# VMS™

Valdunes Mountain Safety



HIGH BRAKING  
PERFORMANCE

HIGH SAFETY  
LEVEL

PROVEN  
WHEEL  
DESIGN

## 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.



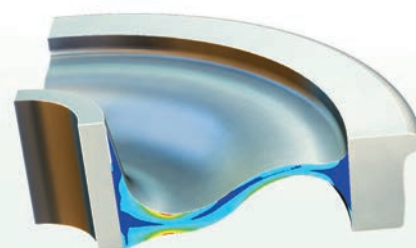
OVER 200'000 WHEELS  
IN SERVICE IN THE WORLD



WWW.VALDUNES.COM

# VMS™

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VMS 630 mm  $\leq \varnothing \leq$  1000 mm

### 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.

OUR BUSINESS SPIRIT  
: INNOVATION & PERFORMANCE

