

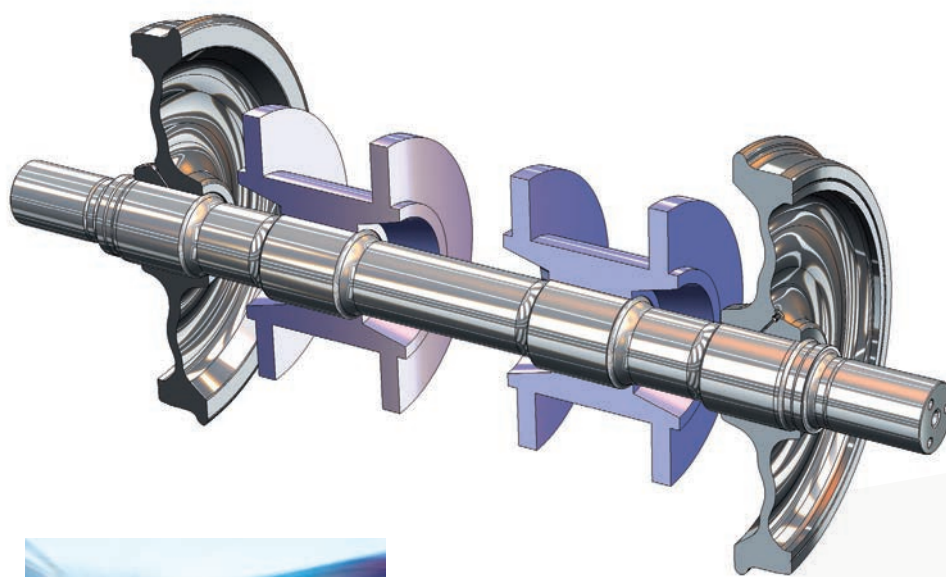
# VHiS™ Valdunes High Speed



OVER  
360KM/H

HIGH  
RELIABILITY  
AND SAFETY

PROVEN  
PROCESS OVER  
40 YEARS OF  
EXPERIENCE



## Unique service record

on main high speed train lines  
(from 250 km/h up to 360 km/h).

**Control** of the steel shop process  
(metallurgy and steel cleanliness)  
and automatic Ultrasonic  
Testing (FBH dia ≤ 1 mm).

**Noise reduction** solutions  
from 200 to 360 km/h.

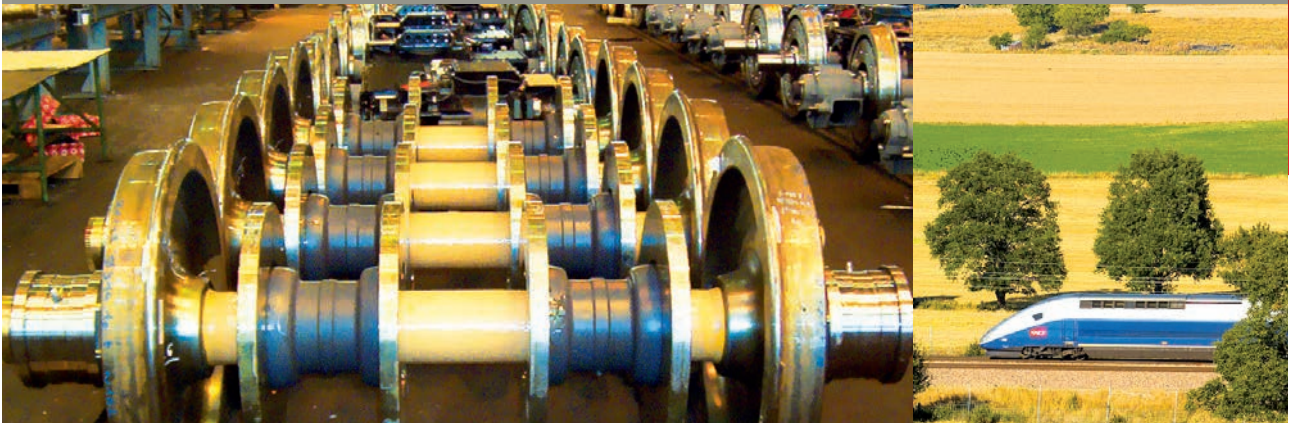
**Decreased maintenance**  
downtime through increased  
average wheel life (2.5 Mkm)  
and quality improvements.

## High Level of wheelset protection

- Corrosion protection and impact resistance (thick coating & shells).
- Compliance to EN 13260, EN 13261 and to EURAXLES recommendations.
- Easy maintainability.

EN 13262, EN 13979-1  
and HS TSI  
wheel compliance. 

# VHiS™ Valdunes High Speed



## BACKGROUND

As early as 1975 we were developing **new metallurgy**, steel cleanliness and quality assurance procedures to overcome problems of rim shatter defects and of tread on the first high speed trains in France (250 km/h). We have built on this experience to become the **world leader in high speed train wheel manufacturing (current every day speeds of 320 km/h)**.

## SOLUTIONS

- **Homogeneous continuous** casting process.
- **High cleanliness** steel grade.
- **Homogeneous heat-treatment and machining** to rectify wheel run-out.
- **NDT control** and steel cleanliness inspection.

## WORLDWIDE EXPERIENCE

More than 40 years of knowledge and experience with **more than 350'000 VHiS products** supplied for all main projects (KTX, KTX2, EU-ROSTAR, THALYS, TGV PSE, TGV A, TGV R, TGV 2N, TGV EURODUPLEX, TALGO 350, ACELA, ICE, AVE, AGV).

## BENEFITS

- Improved safety.
- Increased wheel life.
- Reduced downtime.
- Reduced life cycle cost.
- Reduced track wear.

## OUR MAIN REFERENCES

Alstom, Bombardier, SNCF (France), DB (Germany), NTV (Italy), Renfe, Talgo Patentes (Spain), SNCB (Belgium), CRRC (China), Hyundai Rotem (Korea), Amtrak (USA), Via Rail (Canada), TCDD (Turkey), Talgo (Saudi Arabia)...

OUR BUSINESS SPIRIT  
**INNOVATION & PERFORMANCE**

