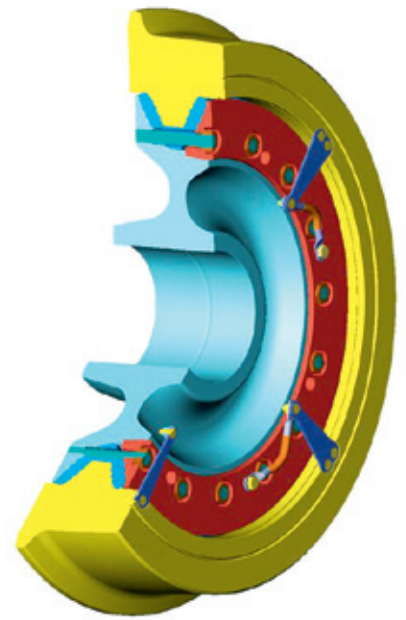


Resilient Wheels



SAB V60

KEY BENEFITS OF GHH-VALDUNES SOLUTIONS

TAILOR-MADE SOLUTIONS, BECAUSE EACH PROJECT IS UNIQUE

Specifics like: small diameter, high wheel load, thermal impact from block brake...

MAINTAINABILITY, BECAUSE SERVICE COSTS MUST BE MINIMAL

One common feature for all our wheels: a split design. Three steel parts: a wheel tyre, a wheel body and a wedge ring. In between, some pre-stressed rubber elements: rubber pads, or, alternatively, one rubber ring or two rubber rings. Result: a very easy replacement of tyres and rubber elements, with only hand tools, without any hydraulic press.

RUNNING COMFORT, FOR THE PASSENGER, THE RESIDENT, THE VEHICLE AND ITS TRACK

Proven by field measurements or positive customer ratings. **GHH-VALDUNES** resilient wheels provide a very efficient reduction of shocks and vibrations. With their low radial stiffness, the SAB Resilient Wheel or the VUT™ wheel can replace a primary suspension or accommodate specific bogie designs, e.g. direct motor drives.

NOISE REDUCTION

GHH-VALDUNES resilient wheels decrease rolling noise and squealing noise in curves. In case of additional requirements, **GHH-VALDUNES** proposes customised noise absorption systems, like rings, absorbers or shields, mounted on the wheel tyre.

REDUCED UNSPRUNG MASS

REDUCTION OF VIBRATION AND NOISE

EASY REPLACEMENT OF WHEEL TYRES

Resilient wheels the complete portfolio of GHH-VALDUNES

A wide product range of rubber-sprung wheels, based on the experience of more than 75 years and **120'000 wheels supplied** in very different applications, **from light rail to heavy haul locomotives:**

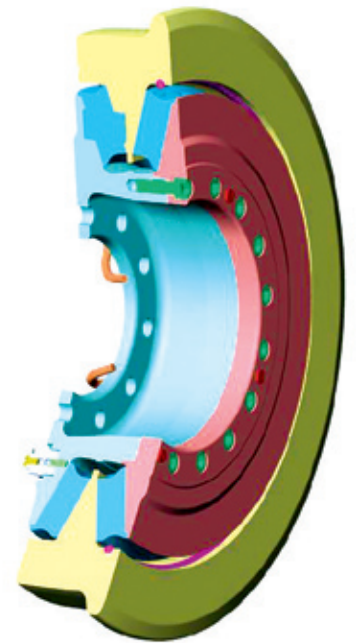
- The SAB Resilient Disc Wheel.
- The SAB V-Wheel family (V15 - V30 - V60).
- The VUT™ Wheel.

➔ Personalised solutions, a real expertise



GHH-VALDUNES
www.ghh-valdunes.com

Resilient Wheels



VUT™

SAB V60-WHEEL

The most popular resilient wheel is the SAB V60-Wheel. Thanks to its simple structural design, it's the ideal solution for modern low floor light rail vehicles with limited installation space, small wheel diameters and relatively high wheel loads.

Features

- Medium radial and high axial stiffness.
- Wheel diameters from 400 mm to 880 mm.
- Wheel loads up to 75 kN (depending on wheel diameter).
- Minimum space requirement: one rubber ring only with steep pitch, limited radial and axial dimensions.

Special benefits

- Reduced maintenance downtime.
- Easy and fast wheel tyre replacement. In some configurations (e.g. inboard bearings), tyres can even be changed on the vehicle, without disassembly of the wheelset or bogie.
- Easy inspection of earthing shunts.
- Improved safety by limited axial deflection and V-shaped tyre and rubber ring.
- Light weight.
- Versatility in design: minimum space requirements allowing for great design flexibility (independent wheel units or axles with bearing systems integrated into wheel hub, small tyre width...).

Since 1990 and its introduction on the marketplace, more than 40'000 SAB V60-Wheels are in operation worldwide.

VUT™ WHEEL

The VUT™ wheel makes redundant primary suspension, and allows a wheel hub integrated drive.

Features

- Low radial stiffness.
- Wheel diameters from 590 mm to 715 mm.
- Wheel loads up to 60 kN.
- Maximum vehicle speed: 80 kph.

Special benefits

- High level of passenger comfort.
- Compact wheel including primary suspension function.
- Reduced maintenance downtime.
- Improved safety by limited axial deflection and V-shaped tyre and rubber rings.

Since 1998, more than 7'000 VUT™ wheels in operation.

SOME OF OUR REFERENCES

Car builders: AnsaldoBreda, Alstom, Bombardier, Pesa, Siemens, Skoda, Solaris, Stadler...

Some networks using SAB V60 wheels: Adelaide (Australia), Vienna (Austria), Brussels (Belgium), Nantes, Marseille, Strasbourg (France), Berlin, Dresden, Düsseldorf, Franckfurt-am-Main, Kassel, Mannheim (Germany), Hiroshima (Japan), Madrid (Spain), Basel, Bern, Geneva, Zurich (Switzerland), Prag (Czech Republic), Warsaw (Poland)...

Some networks using VUT™ wheels: Melbourne (Australia), Graz (Austria), Bordeaux, Lyon, Mulhouse, Paris, Strasbourg, Valenciennes (France), Dublin (Ireland), Barcelona, Tenerife (Spain)...


GHH-VALDUNES
www.ghh-valdunes.com

GUTEHOFFNUNGSHÜTTE RADSATZ GMBH

Gartenstraße 40 - 46145 Oberhausen - DEUTSCHLAND
Tel: +49 (0) 208 7400-0 - Fax: +49 (0) 208 7400 320

VALDUNES

Rue Gustave Delory - 59125 Trith-Saint-Léger - FRANCE
Tel: +33 (0)3 27 23 62 62 - Fax: +33 (0)3 27 23 62 11

Web: www.ghh-valdunes.com - Mail: info@ghh-valdunes.com

Photographers: ALSTOM - SIEMENS - GHH-VALDUNES - D.R.