

Advanced Automatic Sander

Variable Rate Sanding



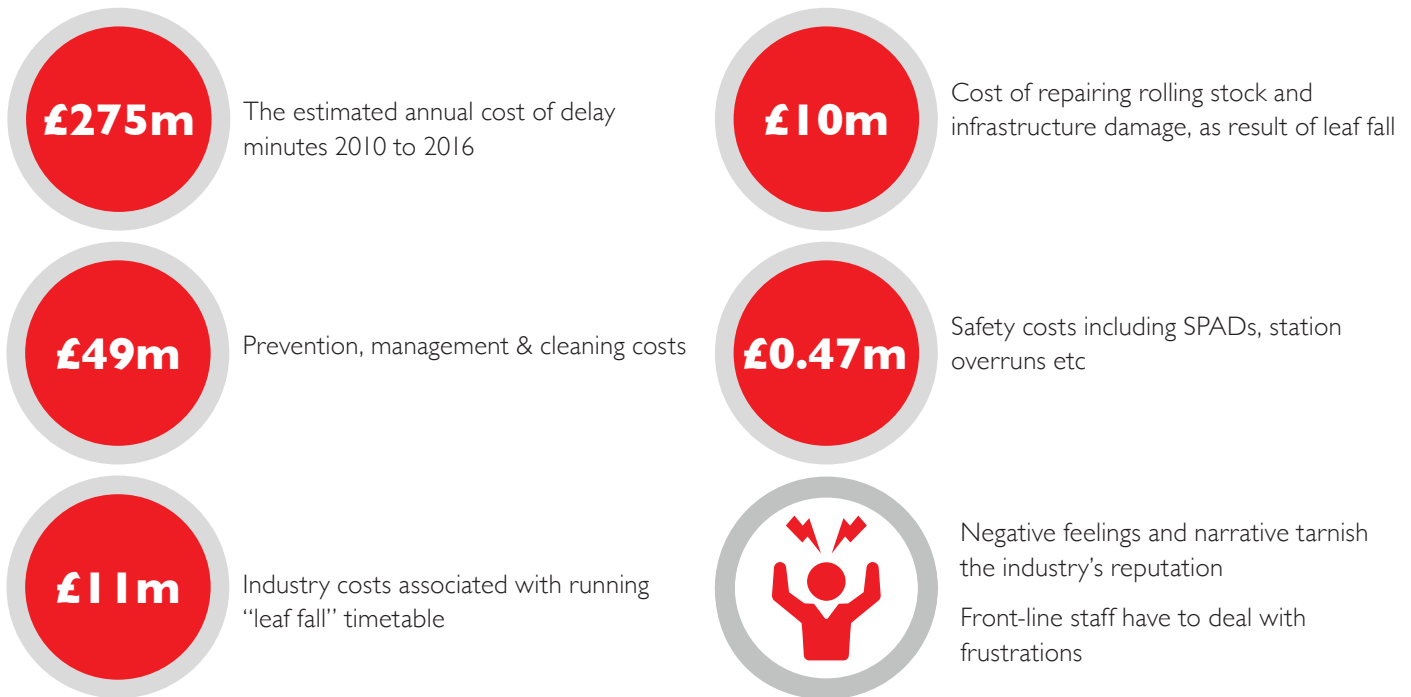
Award winning, service proven sander systems that have raised the game on the capabilities and expectations of sander technology

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RAIL

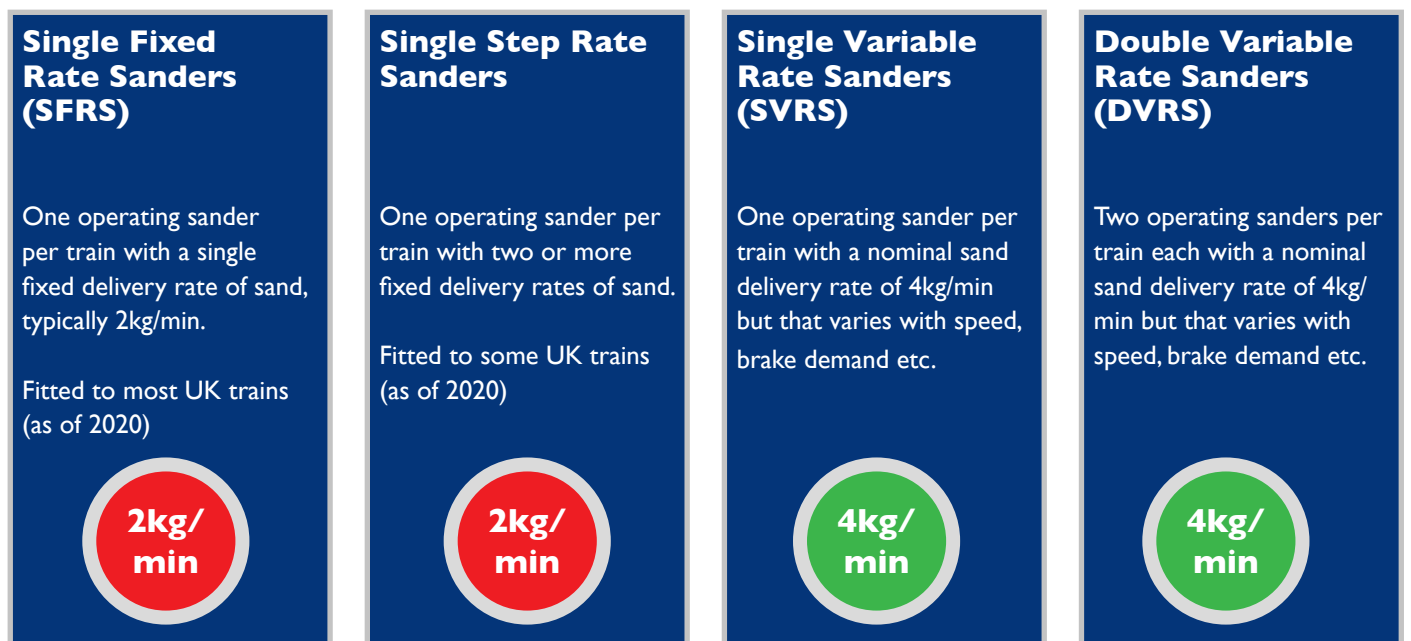
SERVING THE WORLD'S RAILWAYS

Why is adhesion management a big issue for the rail industry?

Through direct and indirect costs, low adhesion is estimated to cost the UK rail industry **£345m** per year*. Improved adhesion control will avoid:



Options





* Source: Paul Gray, Professional Lead, Engineering, R&D, RSSBT | I07 Trial of Sander Configurations and Sand Laying Rates 6th & 7th February 2018


The Solution





RSSB Research project T1107 has proved, through testing and service trial (which AB Rail designed and supplied the sanding system for), that DVRS is the single biggest step forward in seasonal adhesion management in the last 20 years.

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DVRS proved to deliver predictable, "seasonally agnostic" braking at 6% of g; year round "services timed and delivered to the second"
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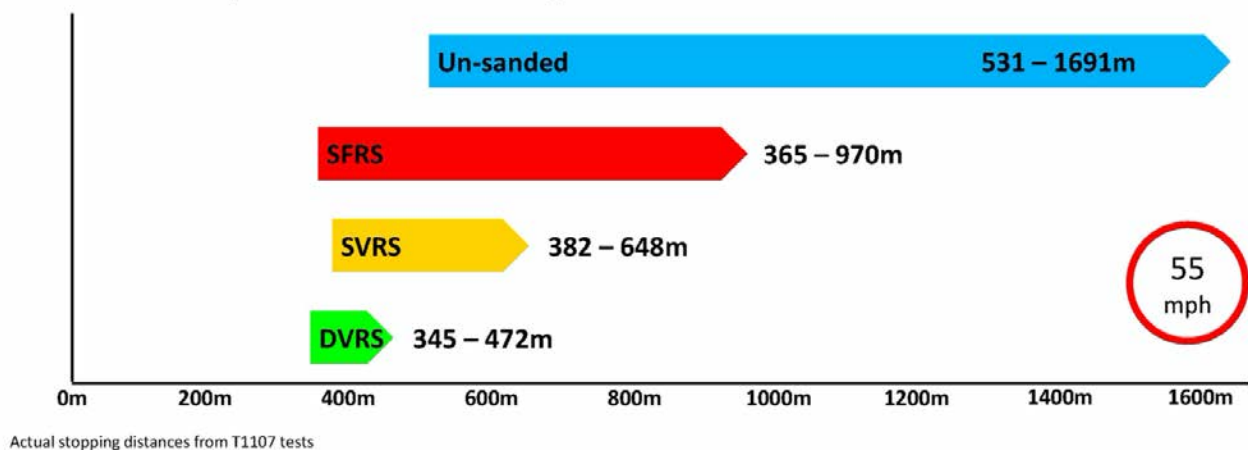
The removal of a significant barrier to future increased capacity aspirations valued at up to £10bn over 15 years
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Could reduce low adhesion related SPADs by 98%
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No increase in sand consumption per train; more sanders but quicker stopping means same sand use.
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Could reduce low adhesion related station overruns by 96%

The graph below shows the improvement in both overall stopping distance and consistency of stopping performance offered by DVRS and SVRS



The AB Rail (AB Hoses and Fittings Ltd) award-winning **Advanced Automatic Sander** delivers:

- The **only** service-proven DVRS system available in the UK
- Computer controlled, fully configurable, variable rate sanding delivering 4kg/minute, or more, of sand using patented design
- Automated & manual braking and traction sanding
- Only full UK designed and manufactured sander system
- Real-time sand level monitoring with display for driver AND maintainers, and function management
- 15-year design life with 3 year warranty
- Can include data logging, GPS, 4G and wifi comms for real-time sander usage data and maintenance alerts
- Interface with existing OTMR and TMS
- Bespoke raft/hopper design
- Full "turn key" package from design to manufacture to installation to through-life support
- Potential to retro-fit ABH control system and sand valves to existing sander equipment.



About AB Hoses

AB Rail (AB Hoses & Fittings Ltd) has been a key player in providing sander system parts, full bespoke sander systems and associated sander services for the UK Rail Industry since the 1990's.



They are a "one stop shop" for all of your sander system needs; working with all systems, from BR era fixed rate sanders to the latest, cutting edge, industry leading variable rate technology and application with their own award winning "Advanced Automatic Sander" systems, for rolling stock manufacturers, operators, maintainers and leasing companies. They undertake:

- Parts supply
- Repair, Service and Overhaul
- Continuing Product support and improvement
- Engineering consultancy for sander systems
- New system design, build and installation

They are RISQS registered and assured for all sander related activities and their customer relationships range from "stand alone" material supply to fully managed "turn key" bespoke design and installation with ongoing, engaged product support.

Providing a bespoke solution for each customer, that delivers what they want and what they need, their products, using their own patented parts where applicable, are UK designed and manufactured and our supply chain is predominantly contained within a 50-mile radius of their Chesterfield factory.

They provide full document packs to support Train Operator and Train Owner Engineering Change approval and to allow independent attestation/certification review for any modified or new products, and are also looking to the future of sanders and are actively involved in research and trials with industry bodies.



Tank assembly manufacture



In-cab CPU



Tank and application arrangement

What our customers think:

Drivers who have driven the trains fitted with the AB Hoses AAS DVRS system have been **very impressed** with the performance, one driver described it as **absolutely brilliant** & went on to say that it gave a **marked improvement** in stopping performance.

A **TOC Operations Director** who experienced the AB Hoses AAS DVRS system in action described it as a **game changer**.

A **Network Rail Head of Operations** who also saw and experienced the AB Hoses AAS DVRS system for himself stated it was **ground breaking**.

A **senior industry R&D** engineer stated that AB Hoses had, through the AAS DVRS, **raised the game** on the capabilities and expectations of sander technology.

Unipart Rail

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