



Steel sleepers from British Steel are designed for use in a wide range of applications, from metre gauge railways to mainline passenger and heavy haul freight routes.

British Steel has a long and proud history of supplying steel sleepers worldwide, with strict quality assurance processes in place to ensure every delivery will have a long life in service.

Our steel sleepers are manufactured from hot rolled steel produced at our Scunthorpe steelworks, and comply with all major standards (UIC, AREMA, AS etc).

We've exported more than a million steel sleepers over the last 20 years, to numerous countries around the world, with metre gauge (1,000mm/1,067mm) and standard gauge (1,435mm) railways being most common.

Working in partnership to meet customer needs

British Steel works in partnership with customers to understand the needs of the rail sector and develop innovative and value-adding products to directly address those needs.

In-house product development work, including extensive cyclic load and lateral resistance testing of finished sleepers, has resulted in a range of steel profiles that ensures efficient sleeper designs and a track which holds its alignment even under the most intensive traffic conditions.

From low axle load narrow gauge railways up to heavy freight routes, our range of steel sleepers will accommodate all types of traffic, rail profile and fastening system.

Being fully recyclable, our steel sleepers also benefit from a smaller carbon footprint, making it easier to hit your sustainability targets.

Durable solution for track installations

Once installed, steel sleepers don't rot or suffer from insect attacks. They also survive well in wet tropical climates where wood decays rapidly.

Our steel sleepers can be laid onto existing ballast. The sleeper profile and spade ends interact with the ballast bed to produce a highly stable track support, requiring only minimal quantities of fresh ballast to complete the installation.

Ease of transportation

Steel sleepers are stackable and because they are lighter than concrete sleepers, can be moved in bundles by a forklift (or manually handled if regulations allow).

Road vehicles can carry 3 times more steel sleepers than concrete sleepers, meaning lower logistics costs.

We export our steel sleepers in standard shipping containers, with sleepers stacked in bundles of 10. Typical container loading is 300-400 standard gauge sleepers and 450-600 metric gauge sleepers.

They can also be delivered with all fastening systems pre-installed, helping to keep your installation times to a minimum.

Less ballast required

Steel sleepers require less ballast than traditional concrete sleepers, because the body of ballast within the sleeper provides the necessary support to distribute the load, resulting in reduced track construction and renewal costs.

Rigorous testing for product performance

The effectiveness of our steel sleepers is assured by our comprehensive laboratory testing procedures which cover stringent criteria such as fatigue resistance, lateral stability and electrical resistance.

Pads and insulators for our steel sleepers are tested in accordance with EN 13146-5:2002, ensuring very high electrical resistance and compliance with track circuit signalling requirements.

In-track performance

British Steel has been producing steel sleepers for over 50 years, with many of those sleepers still in service today.

Our steel sleepers have enabled railways around the world to transport heavier loads with reduced maintenance costs due to the excellent track stability properties they provide.

Over the last 25 years, our steel sleepers have been used extensively across the UK for track renewals on lower category routes and single track lines due to the significant cost savings achieved compared to using concrete sleepers.

The use of steel sleepers has allowed typical production rates of 300m during a midweek night "no trains period" possession.

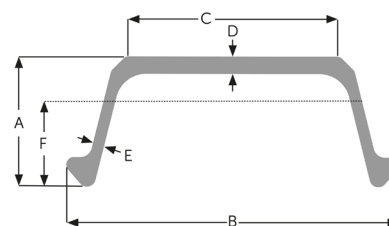
Technical support

Our technical team is available to provide advice and support, helping you to optimise your steel sleeper selections. Steel sleepers can be matched precisely to rail sizes, gauges, inclinations, axle loads and a host of other variables to ensure that every sleeper we deliver provides optimum performance throughout its service life.

Steel sleeper properties

The table below indicates the standard dimensions and mechanical properties for British Steel's steel sleeper range.

Principle dimensions and properties



Sleeper profile	Section weight kg/m	Section height mm (A)	Section width mm (B)	Rail seat width mm (C)	Rail seat thickness mm (D)	Leg thickness mm (E)	Moment of inertia I_{xx} cm ⁴	Section modulus cm ³	Height of neutral axis from base mm (F)
202	22.10	82	240	160	7.5/12.0	6.75	200.0	34.4	58.1
300	28.36	92	254	160	12.0	7.0	283.3	42.3	67.0
402	28.54	100	260	168	10.0	7.0	426.0	62.8	67.1
436	31.69	100	260	168	12.0	7.0	432.8	65.8	68.4
600	39.53	115	280	168	14.5	7.6	654.7	81.3	80.5

Notes: Can be supplied for all rail sizes and with the inclination required for your network. Can be tailored to any rail gauge – 1,000mm, 1,067mm (3' 6"), standard and broad gauge.

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