



Universally
deployable



Turnouts
and rails



Versatile
(track gauges)



Exact
reprofiling



High metal removal
rates per pass possible



Suitable for use
in tunnels

Milling side wear on curved track

Technical Datasheet

Why replace rails in curved track that have side wear?

Over time, the centrifugal forces that occur when trains travel through curves produce a negative copy of the wheel profile in the gauge corner of the curve's inside rail. Wear marks begin to form in the early stages and in later stages become gouges in the side of the rail. Here the critical zone in the Y-axis starts at the 4-millimeter mark. With conventional milling tools, there's the risk that the wheel flange will hit the bottom edge of the side gouging and consequently not remove enough material to rectify the defect. After it has been machined with the SF02 milling truck, which is configured for rectifying specifically this type of rail defect, the rail can be machined again normally in compliance with regulations without any restrictions.



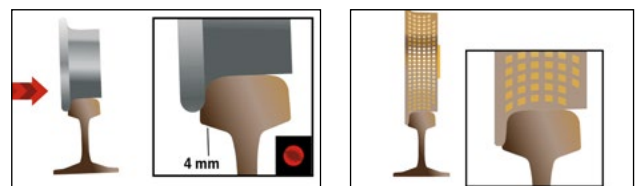
Benefits

- / Damage can now be milled out of rails which were previous regarded as beyond machining due to severe side gouging
- / A specially designed milling wheel displaces the critical zone along the bottom of the gouge approx. 4 mm lower down



Applications

- / Curved track with side wear and/or gouging
- / The extensive rail lipping that can occur on the curve's lower rail will also be rectified



SF02 W-FS

Technical Data

Main dimensions

Length over buffers (LoB)	18,320 mm
Height	3,408 mm
Width	2,490 mm
Number of bogies Number of axles	1–4
Wheelbase between bogie pins	not applicable as vehicle has only one bogie and 2 fixed axles
Vehicle gauge / structure gauge	UIC 505-1

Speed

Hauling speed when transported as part of train set	transport in train sets not permitted
Hauling speed	20 km/h
Max. speed (self-propelled)	rail speed: 45 km/h road speed: 80 km/h
Operating speed	0.4–0.8 km/h

Weight

Tare weight	45 t
Maximum axle load	12.4 t

Brake system

Brake system type	hydrostatically operated brake system – activated via traction lever + direct-acting brake system that works by means of an auxiliary shaft on the differential 4 disc brakes
Braked weight	40
Braked weight percentage (calculated using the braked weight and weight of the vehicle)	92
Transport setting (F/P)	not applicable – no F/P change-over

On-track operability

Shunting maneuvers not permitted (e.g. hump-shunting or loose shunting)	not permitted
Smallest traversable curve radius (transport mode / operating mode)	Ra 50 (transport) Ra 80 (operating)
Max. uphill and downhill gradients/cant (transport mode / operating mode)	40 ‰ uphill and downhill
Transport in train set / as end vehicle	transport in train sets or as end vehicle not permitted

Weather constraints

Ambient temperature (operating mode)	between -10°C and 40°C, modifications possible
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Equipment / features

Performance data	one milling unit on each side, integrated tangential grinding units and downstream flap-disc grinding units
Material removal	0.9 mm max. material removal per pass
Applicable standards	DB Ril 824, EU Standard 13231:2-2020
Personnel: machine operator, crew (number, qualifications)	4 personnel for operation + 2 personnel for maintenance shift
Equipment for train operation	ATC, ITC, digital train radio

Global expertise
in over 100 countries

