



Universally
deployable



Turnouts
and rails



Versatile
(track gauges)



Exact
reprofiling



High metal removal
rates per pass possible



Suitable for use

Milling side wear on curved track

Technical Datasheet

vossloh
enabling green mobility



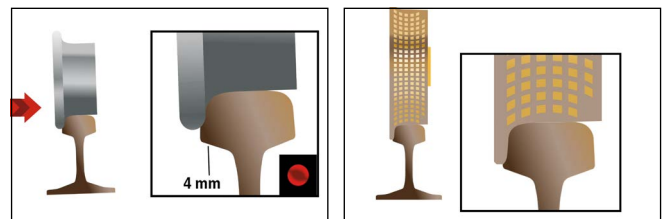
Benefits

- / Damage can now be milled out of rails which were previously 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



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.

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 |
|--------------------------------------|--|

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 |

