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Universally deployable

Turnouts and rails

Versatile (track gauges)

Exact reprofiling

High metal removal rates per pass possible

Suitable for use in tunnels

Milling technology for machining level crossings

Technical Datasheet

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Maintaining rails at level crossings using milling

The milling tool on the SF02 road-rail truck has the same dimensions as a rail wheel, which allows it to continuously machine rails through a level crossing – provided that the clearance at the gauge corner complies with the "European standard for wheel flanges": 38 mm laterally and a width of 42 mm. The rail's groove must also be completely free of any residue and there must be sufficient clearance to any adjacent material on the rail's field side to allow the application of the required rail-head curvature. Ideally, this adjacent material should be 2 mm lower than the top of the rail.

Benefits

/ Continuous rail machining
/ Rails damaged by the grit put down in winter are fully reprofiled
/ Rails can also be machined during short possession times when track is closed
/ Quick on-railing and off-railing thanks to road access

Applications

/ Machining straight track
/ Machining new rails
/ Preventive maintenance
/ Reducing noise in sensitive areas
/ Ideal for small-scale construction works

Video

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

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