



Standard
gauge



Exact
reprofiling



Suitable for use
in tunnels



High metal removal
rate per pass possible



Noise reduction

SF03 W-FFS Rail Milling Train

Technical Datasheet

SF03 W-FSS: Here's how effective milling can be!

Depending on the rail's condition and the defect depth, the SF03 W-FFS rail milling train can fully profile the rail in a single pass. The SF03 W-FFS also does the fine grinding finish and helps to extend the rail's service life. This rail milling train is capable of self-sufficient operation for up to 8 hours and is very environmentally friendly thanks to the minimal dust and sparks it produces.



Benefits

- / Approved and used by DB
- / Approved for use in other European countries
- / Can be used for very long periods thanks to system autonomy
- / High level of planning accuracy
- / Equipped according to requirements
- / Modular configuration
- / Clean milling process
- / No removal of trackside switching equipment needed
- / Production of all standard cross profiles and rail inclinations

Applications

- / Effective track machining
- / Removes mill-scale from new rails
- / Preventive maintenance
- / Reduces noise emissions in sensitive areas
- / Ideal for high-speed lines



SF03 W-FSS

Technical Data

Main dimensions	
Length over buffers (LoB)	23,800 mm
Height	4,210 mm
Width	3,100 mm
Number of bogies Number of axles	2–6
Wheelbase between bogie pins	15,300 mm
Distance between bogie axles	1,800 mm
Vehicle gauge / structure gauge	UIC 505-1 IV

Speed	
Hauling speed when transported as part of train set	transport inside train sets not permitted, end vehicle only
Hauling speed	100 km/h
Max. speed (self-propelled)	100 km/h
Operating speed	0,5–0,9 km/h

Weight	
Tare weight	112.5 t
Max. permitted overall weight	123 t
Maximum weight per meter	5.04 t/m
Maximum axle load	20.5 t

Brake system	
Brake system type	driver's brake Knorr RZBE-FB 11 (indirect), Knorr RZBE 12 (direct)
Braked weight	106 t
Braked weight percentage (calculated using the braked weight and weight of the vehicle)	90
Transport setting (F/P)	braked weight P = 105 t fixed in position "P"

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 150 (transport) Ra 180 (operating)
Max. uphill and downhill gradients/cant (transport mode / operating mode)	40 ‰ uphill and downhill
Transport in train set / as end vehicle	end vehicle only, max. trailing load 60 t

Weather constraints	
Ambient temperature (operating mode)	between -10°C and 40°C, modifications possible

Equipment / features	
Performance data	two milling units on each side, integrated tangential grinding units and downstream flap-disc grinding units
Material removal	can remove 0.3 – 1.8 mm of metal 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

