



Universally
deployable



Turnouts
and rails



Versatile
(track gauges)



Exact
reprofiling



High metal removal
rates per pass possible



Suitable for use
in tunnels

Track gauge correction

Technical Datasheet

Track closed because of gauge narrowing? It doesn't have to be that way!

Various circumstances can cause the track gauge to narrow in places, which inevitably leads to the track having to be closed to all traffic once its gauge falls below 1,430 mm. Proper track gauge correction using Vossloh machines corrects track gauges by 2.5 mm per rail – 5 mm in total – and quickly ensures safe, long-term operation.

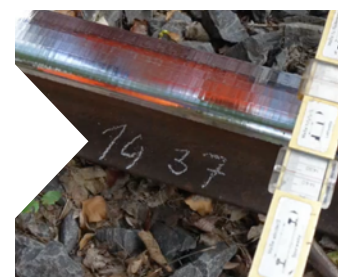


Benefits

- / Prevents tracks having to be closed to rail operations
- / Prevents premature wear of wheel tyres
- / Noise reduction
- / Increased operational safety

Applications

- / All areas where e.g. rail lipping or flexural fatigue can narrow the track gauge



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

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
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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

Milling train VTM-performance

Technical Data

Main dimensions

Length over buffers (LoB)	61,700 mm
Height	3,840 mm
Width	2,620 mm
Number of bogies Number of axles	6–12
Wheelbase between bogie pins	14,200 mm
Distance between bogie axles	1,800 mm
Vehicle gauge / structure gauge	GE/RT8073 W6A UIC 503

Speed

Hauling speed when transported as part of train set	must not be placed inside train set; end vehicle only
Hauling speed	120 km/h
Max. speed (self-propelled)	12 km/h
Operating speed	0.4–2.0 km/h

Weight

Tare weight	210 t
Max. permitted overall weight	240 t
Maximum weight per meter	4.0 t/m
Maximum axle load	225 kN

Brake system

Brake system type	lead vehicle: KE-GP-A-mZ direct systems vehicle: KE-GP-A milling vehicle: KE-GP-mZD
Braked weight	72 t
Braked weight percentage (calculated using the braked weight and weight of the vehicle)	90

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 200 (operating)
Max. uphill and downhill gradients/cant (transport mode/operating mode)	40 ‰ uphill and downhill
Transport in train set / end vehicle	end vehicle, max. trailing load 160 t

Weather constraints

Ambient temperature (operating mode)	between -15° C and +40° C
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Equipment / features

Specific features	integrated eddy current testing system, preparation for integrated longitudinal and transverse profile measuring system, power electronics with train power supply line, quality monitoring systems, intelligent power management system and an installed capacity of 1.077 kW
Performance data	one milling unit on each side, integrated face-milled finishing process
Material removal	max. removal per pass: 2.0 mm rated milling output : 1.5 mm removal at 1,200 m/h
Applicable standards	DB Ril 824, EU Standard 13231:2-2020
Personnel: machine operator, crew (number, qualifications)	3 personnel for operation + 2 personnel for maintenance shift
Equipment for train operation	MESA 23 digital train radio

Milling machine VTM-compact

Technical Data

Main dimensions

Length over buffers (LoB)	5,800 mm
Height	2,230 mm
Width	2,210 mm
Number of bogies Number of axles	2 (+ 2 milling axles)
Wheelbase between bogie pins	4,220 mm (transport mode running gear), 2,500 mm (operating mode running gear)
Distance between bogie axles	no bogies but 2 axles
Height of vehicle floor above TOR	144 mm
Vehicle gauge / structure gauge	Berlin "tight" metro

Speed

Hauling speed when transported as part of train set	transport in train sets not permitted
Hauling speed	30 km/h
Max. speed (self-propelled)	2.7 km/h
Operating speed	1–3.5 m/min

Weight

Tare weight	16 t
Max. permitted overall weight	17 t
Maximum weight per meter	2.93 t/m
Maximum axle load	8.5 t

Brake system

Brake system type	hydraulic dual-chamber piston brakes (parking and service brakes), Ortlinghaus-Werke GmbH – Series 0992-009-43-014000
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On-track operability

Shunting maneuvers not permitted (e.g. hump-shunting or loose shunting)	not permitted
Smallest traversable curve radius (transport mode/operating mode)	R _{min} = 30 (transport) R _{min} = 50 (operating)
Max. uphill and downhill gradients/cant (transport mode / operating mode)	40 ‰ uphill and downhill (dry conditions), downhill preferable in wet conditions
Transport in train set / as end vehicle	transport in train sets 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, trailing finish-grinding units (optional)/ flap-disc grinding units, finish-grinding units
Material removal	2 mm max. material removal per pass
Applicable standards	DB Ril 824, EU Standard 13231:2-2020
Personnel: machine operator, crew (number, qualifications)	3 personnel for operation + 1 person for maintenance shift

Global expertise
in over 100 countries

