



Universal
deployment



Switches
and rails



Exact
reprofiling



No dust
or sparks



Versatile
deployment



Suitable for use
in tunnels



Noise reduction up
to 10 decibels

Compact Milling Machine VTM-compact

Technical Datasheet

VTM-compact: compact, adaptable, powerful

The VTM-compact milling machine corrects severe defects in rails and switches at hot-spots on light-rail and standard gauge tracks and in tunnels, removing up to 2 mm of metal per pass. Thanks to its compact dimensions and light weight, the VTM-compact is compatible with virtually every loading gauge and easy to transport. Although not self-propelled in transport mode, the machine is able to travel shorter distances on its own in operation mode (max. 3 km/h). VTM-compact can be set up to run on all the common track gauges to machine flange rails on either ballasted or slab track.



Benefits

- / Optimum milling finish thanks to up-cut milling
- / Adjustable wheel gauge 1,000–1,668 mm
- / Up to 2 mm of metal removed per pass
- / Operating speed: approx. 180 m/h, max 240 m/h
- / No fire risk
- / Suitable for use in tunnels (no dust or sparks)
- / No removal of trackside switching equipment needed
- / Flexible control and operation

Applications

- / Rail and turnout machining
- / Suitable for standard gauge and light rail
- / Suitable for flange rails
- / Suitable for ballasted or slab tracks



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)
Number of bogies Number of axles	no bogies, 2 transport axles 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 consist	transport in consists not permitted
Hauling speed	approved for 30 km/h, 60 km/h technically possible
Max. speed (self-propelled)	3 km/h
Operating speed	180 m/h removing 1 mm, max. 240 m/h

Weight	
Tare weight	16 t
Max. permitted overall weight	17 t
Maximum axle load	8 t

Brake system	
Brake system type	hydraulically controlled oil disc brakes

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 15 (transport) / Ra 50 (operation)
Max. uphill and downhill gradients/cant (transport mode / operating mode)	Operation: 4 % in dry conditions, Transport: also in excess of 4 % with sufficient tractive power
Transport in consist / as end vehicle	No setting in consists, only as end vehicle

Weather constraints	
Ambient temperature (operating mode)	between -10°C and + 40°C

Equipment / features	
Performance data	one milling unit on each side, trailing finish-grinding units/ flap-disc grinding unit; finish-grinding units in consultation with customer
Material removal	2 mm max. material removal per pass
Applicable standards	DB Ril 824, EU Standard 13231:2020
Personnel: machine operator, crew (number, qualifications)	2 personnel for operation + 1 person in support (if track measurements have to be taken, etc.)

Transport
The VTM-compact is transported to the location of operations by road on a truck. Where a street-level track section of sufficient length is available, it can be unloaded from a specially-designed trailer using a hydraulic ramp. Alternatively, the machine can also be unloaded by crane.

Set up and site preparation
<ul style="list-style-type: none"> • Unimpeded, unlimited and free-of-charge access to the track is required • Suitable location for on-railing (see below) • Facilities for disposing of swarf • Site inspection required

Cooperation required from contracting party
Information on local conditions and characteristics (depot parking, swarf container, diesel refueling station and workshop for maintenance/ repairs if required). A suitable on-railing point (accessible for truck and crane and with no catenary). Prior site inspection is obligatory and prior verification of loading gauge is recommended.

Warnings (weather conditions)
No special requirements in central Europe

Global expertise in
over 100 countries

