



Universal deployment



Turnouts and rails



Exact reprofiling



No dust or sparks



Versatile deployment



Suitable for use in tunnels



Reduces noise by up to 10 dB

Compact Multi Purpose Milling Machine (MPM)

Technical Datasheet

MPM: Compact. Variable. Powerful

The MPM (Multi Purpose Milling) machine corrects serious damage to rails and turnout hotspots in commuter and urban transit systems and tunnels, removing up to 2 mm of metal per machining pass. The MPM's compact size and light weight make it easy to transport and compatible with virtually every structure clearance gauge. The machine can be transported a number of different ways and put into operation immediately. The MPM can be adjusted for use on all common track gauges and can operate on Vignoles rails, grooved rails, ballasted tracks and slab tracks.



Benefits

- / Optimum milling finish thanks to up-cut milling
- / Adjustable wheel gauge 1,000 –1,435 mm
- / Up to 2 mm of metal removed per pass
- / Operating speed: approx. 150 m/h, max 200 m/h
- / Fire risk: none
- / 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 Vignoles and grooved rails
- / Suitable for ballasted or slab tracks



Multi Purpose Milling Machine (MPM) 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 TOP	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	0.5–2.5 m/min; 0.03–0.15 km/h

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

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 30 (transport) Ra 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

Equipment / features	
Performance data	one milling unit on each side, trailing finish-grinding units/ flap-disc grinding units, finish-grinding units under construction
Material removal	2 mm max. material removal per pass
Applicable standards	DB Ril 824, EU Standard 13231:3-2012
Personnel: machine operator, crew (number, qualifications)	2 personnel for operation + 1 person for maintenance shift

Global expertise in
over 100 countries

