



Compact large milling machine for dual flush-to-kerb milling

Cold Milling Machine W 200 H/W 200 Hi



Ultra-flexible large milling machine

- The milling drum unit with hydraulically driven milling drum can be moved to the left and right by 400 mm each to enable easy milling around road fixtures.
- The W 200 H / W 200 Hi features left and right zero-clearance sides in a single machine.
- Compliance with exhaust emission standards EC Stage 3b/US Tier 4i and the VCS vacuum cutting system ensure low environmental emission levels.
- Adjustable milling drum speeds ensure highest milling performance even in case of rapidly changing requirements.
- The LEVEL PRO automatic levelling system, which can operate with a variety of different levelling sensors, guarantees highly precise milling results regardless of the construction project and local job site conditions.





On the road of success with two zero-clearance sides

The W 200 H/W 200 Hi cold milling machine from Wirtgen offers a working width of 2.1 m, enabling it to complete all types of large-scale rehabilitation jobs quickly and at low cost. It is the ideal candidate especially for large, high-profile projects carried out in restricted space conditions where, for example, the milling machine needs to travel along with the flowing traffic. Innovative recipe for success: the W 200 H / W 200 Hi features zero clearance for flush-to-kerb milling not only on the right but on both machine sides.

In addition, the milling drum unit can be moved hydraulically by 800 mm altogether, enabling the machine to mill around obstacles with the greatest ease. And what's more: easy handling of the large milling machine, its comprehensive camera equipment and perfect visibility allow effective one-man operation.

Gaining control quickly





Effortless control increases performance and productivity

Simplicity is the guiding principle applied to the operation of the W 200 H / W 200 Hi. The number of controls is small as the WIDRIVE machine management system takes care of many tasks previously performed by the operator. The clearly arranged controls are labelled in a language-neutral manner, fit right into the palm of the operator's hand and help to prevent fatigue during work.

External panels can be used to operate the machine quickly and easily from the ground. In addition, the clearly structured colour control screen continuously informs the operator of key machine and operation parameters. Innovative, user-friendly diagnostic tools make easy work for the machine operator. As a result, he will be able to operate the W 200 H / W 200 Hi effortlessly and intuitively after only a short training period.

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The multifunctional control screen uses graphic displays to provide clear information on operation parameters and maintenance details.



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The workplace is equipped with two functionally identical control panels left and right.

LEVEL PRO – paving the road to success with a unique levelling system

LEVEL PRO delivers ultra-precise milling results

Wirtgen has developed an ultra-precise proprietary levelling system which includes software programmed specifically for cold milling machines – LEVEL PRO. The system comprises the clearly structured LEVEL PRO panel, a controller and several sensors.

The graphics-enabled LEVEL PRO panel provides a clear readout of key parameters. Set and actual values for the left and right milling depth as well as cross slope parameters are clearly shown on the displays as work progresses.

In addition, the memory feature is very useful to pre-program, store and invoke set values.



< LEVEL PRO can also be controlled from the ground.



Wire-rope sensors provide milling depth measurements at the side plates.

The RAPID SLOPE cross slope sensor ensures highest precision in the pavement's cross slope profile.

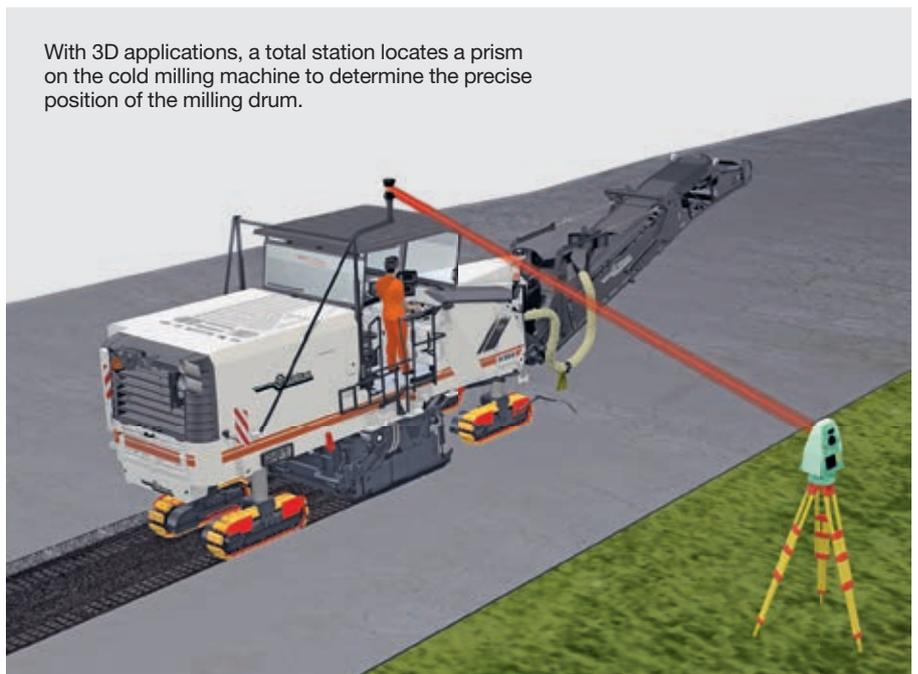


Wide range of levelling sensors

A wide variety of sensors can be integrated into the automatic levelling system, such as wire-rope, hydraulic cylinder, cross slope or ultrasonic sensors. Two wire-rope sensors each measure the milling depth at the side plates left and right. RAPID SLOPE, the exceptionally fast and highly precise electric cross slope sensor, enables significantly higher working speeds while maintaining the levelling quality. LEVEL PRO can be easily extended,

for instance, by the multiplex system, laser levelling or 3D levelling which uses the interface included in the system. The multiplex system analyses three sensor measuring points on each side of the machine – very useful to ensure perfectly level surfaces.

With 3D applications, a total station locates a prism on the cold milling machine to determine the precise position of the milling drum.



Fully focused on the milling job

Optimum angles for one-man operation

The W 200 H / W 200 Hi offers an ingenious visibility concept to support one-man operation: the extra slender design of the front machine frame and recessed wasp waist on both sides give the operator a full view both of the front track unit and the milling edge.

The control panels can be adjusted individually to suit the operator's needs, making sure he does not lose sight of the controls. Yet another highlight: the height-adjustable seat can be moved toward the control panel and beyond the edge of the machine by means of a swivel arm. Altogether, the versatile range of user-specific adjustment options provide the operator with a perfect viewing level and position both when seated and when standing.

The fully vibration-isolated operator's platform and anti-vibration mounted engine minimize the impact of vibrations on the operator. The protective canopy can be moved to either side, offering protection against exposure to rain, wind or sun.



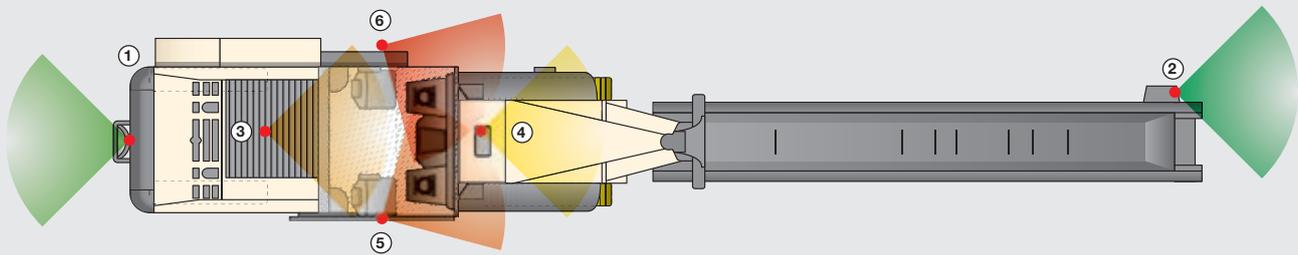


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Trees, street lamps or signs can be safely negotiated by shifting the protective canopy.

←
Ergonomic working and perfect visibility in upright and seated position, adjustable control panels, individually adjustable comfort seats.

Giving operators the full picture – at all times

Overview of cameras:



- ① Camera at the rear
- ② Camera at the end of the conveyor
- ③ Camera at the scraper blade
- ④ Camera at the front, centre
- ⑤ Camera at the front, right
- ⑥ Camera at the front, left



Job parameters and camera images at a glance

From the operator's platform, the machine operator is always up to date not only on what is happening behind or underneath the W 200 H / W 200 Hi but also on the performance levels of the cold milling machine on its current job. He can view up to six different camera settings of different work areas on up to two displays of the control screen, and additionally has an overview of major parameters related to the current milling site.

The control system calculates job parameters automatically based on the input of material density and milling width.

It displays information such as the number of trucks loaded, weight and volume of the milled material and size of the milled area.

The multifunctional control screen can be switched to camera mode to monitor important work processes. Two or six high-resolution colour cameras can be installed in accordance with customer specifications. When using six cameras, an additional camera display is installed to allow two camera views to be displayed simultaneously.

Up to six cameras give the machine operator a full view of the milling process.

The job site parameters displayed facilitate the operator's daily work.

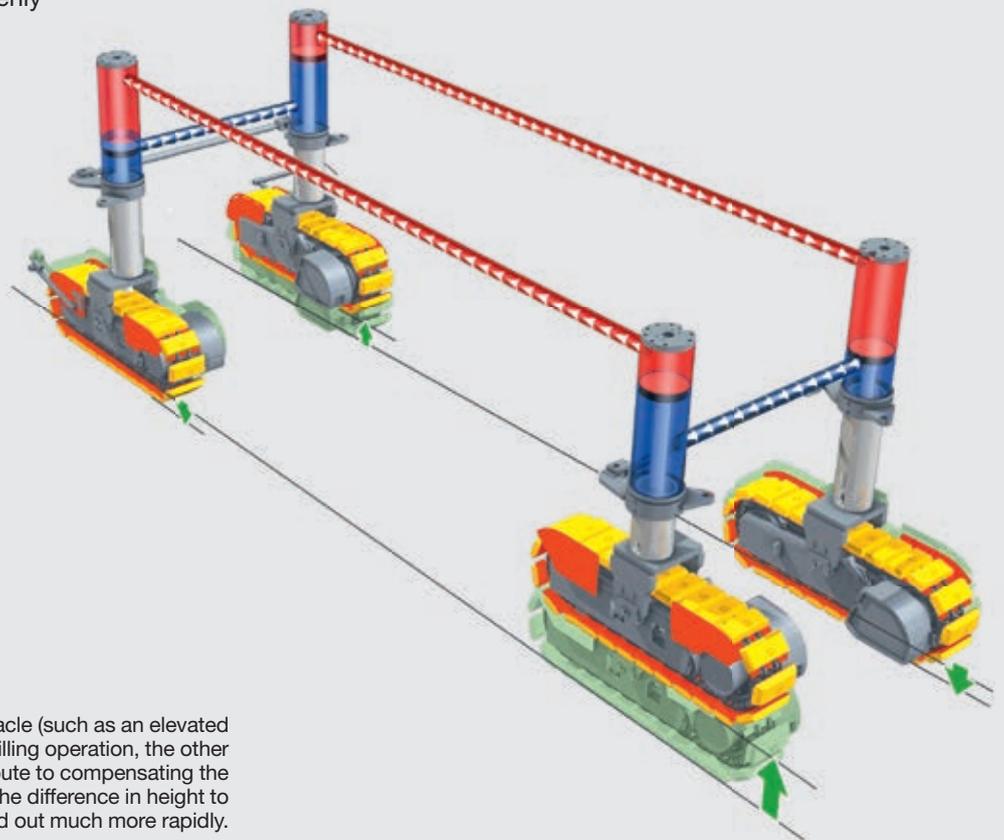


PTS – intelligent machines will drive the future

Automatic chassis alignment parallel to the pavement

The proprietary PTS system guarantees exact compliance with the specified working width while at the same time minimizing operator fatigue. PTS is short for “Parallel To Surface”, meaning that the system aligns the machine parallel to the road surface automatically in a dynamic process: the front and rear lifting columns are lowered evenly and in a parallel movement.

In addition, the four-fold full-floating axle that forms part of the PTS system quickly balances out any irregularities both on the left and right machine sides. Overall, the machine operator is relieved from a significant part of his workload previously generated by the need for manual adjustments.



If one track unit hits an obstacle (such as an elevated milling edge) during the milling operation, the other three track units contribute to compensating the height offset, thus enabling the difference in height to be balanced out much more rapidly.

ISC – gaining ground quickly with outstanding manoeuvrability



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The four track units feature large steering angles to enable amazingly small turning circles.

Crab steering permits the machine to easily approach the milled cut from the side.



Small radii and precise steering manoeuvres

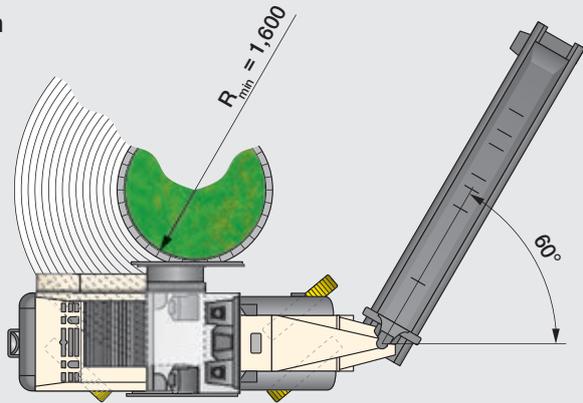
Regardless of whether the machine is manoeuvring or is milling narrow bends, roundabouts or roads in urban areas: the compact W 200 H / W 200 Hi enables even small radii to be milled with maximum precision.

But this is attributable not only to the hydraulic all-track steering system, freely selectable steering modes, suspension units with separate hydraulic height adjustment or continuously adjustable travel speed.

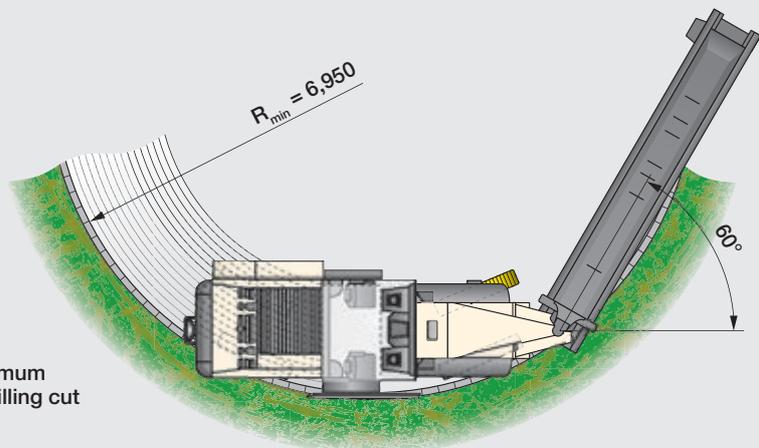
Add to this the intelligent ISC track control system. It includes three basic features: electronic traction control system, automatic speed adjustment of the individual track units in bends and optimized advance rate.

Milling radius, milling depth 150 mm
Dimensions in mm

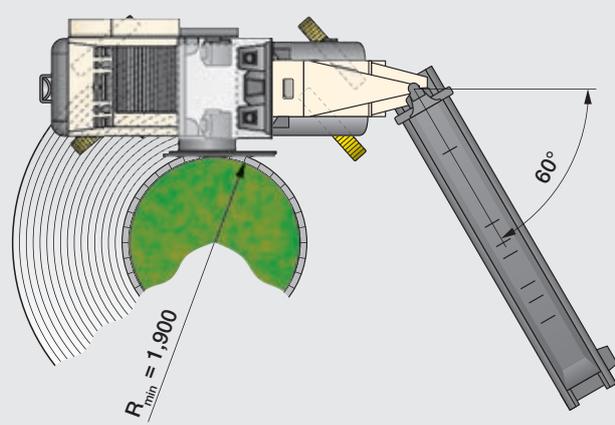
Milling drum unit left,
maximum steering angle left



Milling drum unit right, maximum
milling circle, track unit in milling cut



Milling drum unit right,
maximum steering angle right



Wide range of applications

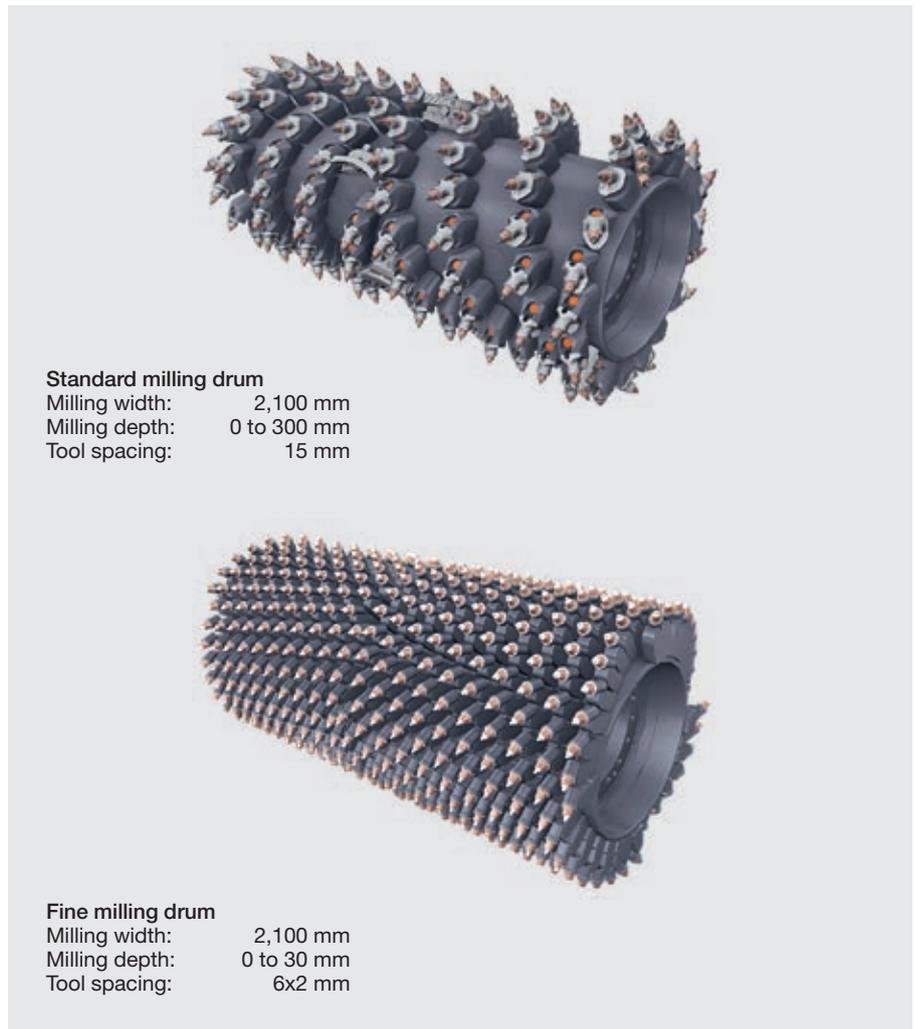
Milling width of 2.1 m,
milling depth of up to
300 mm

The W 200 H / W 200 Hi can alternatively be equipped with a standard milling drum or a fine milling drum, both of which have a working width of 2.1 m and are interchangeable. Standard milling drums are ideal both for removing complete pavement structures comprising surface, binder and base layers and for milling individual pavement layers. In addition, they create a good interlock on the milled surface. Fine milling drums create finely textured surfaces ideally suited as a base for the application of thin pavement layers. They can also be used to level surface irregularities, roughen pavements, improve skid resistance and surface evenness or remove coatings. Its wide range of applications ensures optimal utilization of the W 200 H / W 200 Hi, making it a highly economical machine.

Very useful in many types of operation: the side plates on both the left and right sides of the machine can be raised by 420 mm. Accurate milling flush to kerb is therefore also possible at great working depths, enabling the side plate to move over the kerb for the purpose of level detection.



> The electrohydraulically operated cutting tool extractor helps to improve the machine's overall productivity.



Standard milling drum
 Milling width: 2,100 mm
 Milling depth: 0 to 300 mm
 Tool spacing: 15 mm

Fine milling drum
 Milling width: 2,100 mm
 Milling depth: 0 to 30 mm
 Tool spacing: 6x2 mm

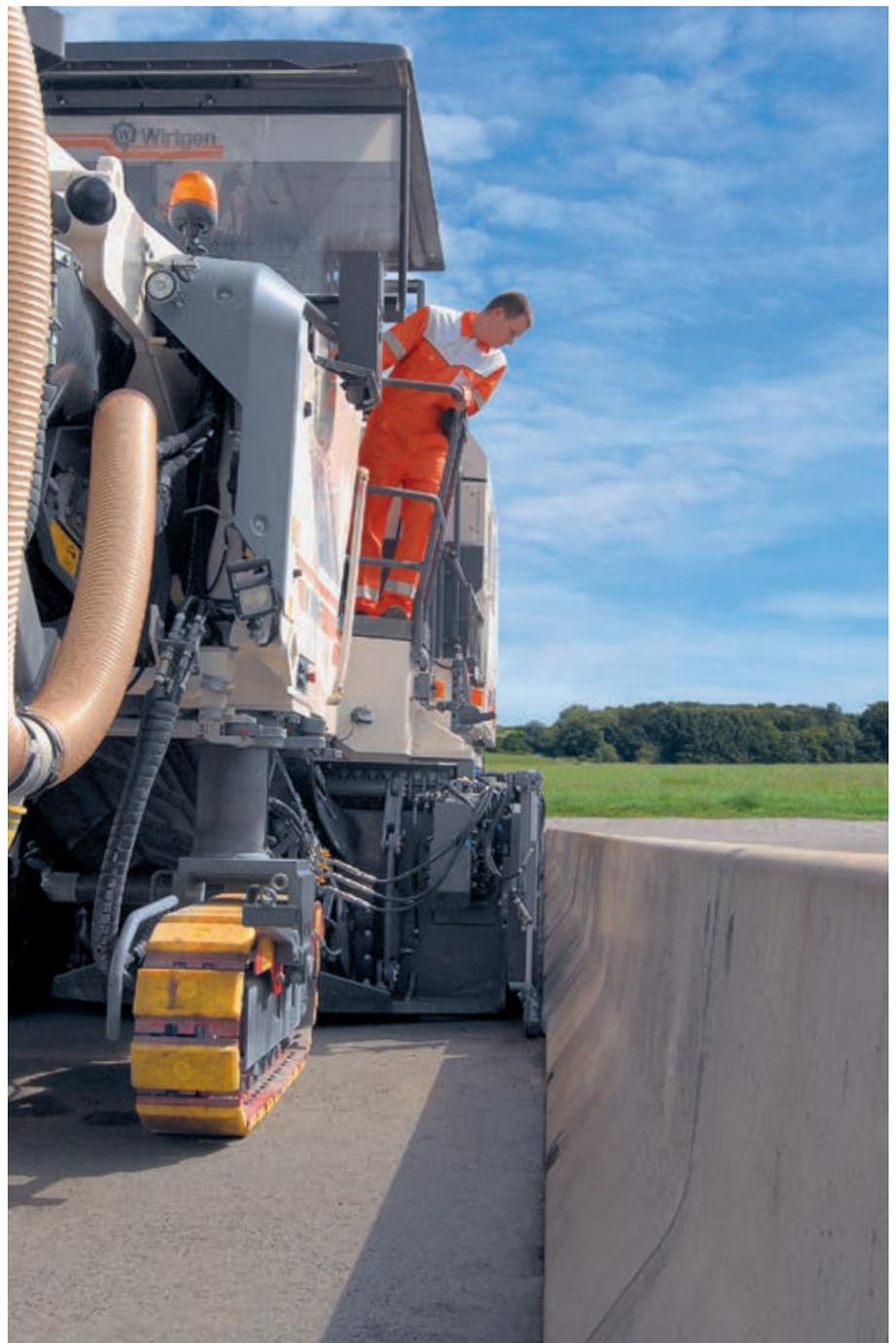


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 The side plates left and right
 can be raised by 420 mm.

Always mill with the flow of traffic thanks to two zero sides



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The large milling machine is capable of milling right up close to safety barriers not only on the right ...



>
... but also on the left machine side.



Moving the milling drum unit to the right hydraulically enables the W 200 H / W 200 Hi to mill flush along the right-hand safety barrier while moving forward with the flow of traffic.



Moving the milling drum unit to the left then enables the W 200 H / W 200 Hi to mill right up close to the traffic cones on the left side of the machine without requiring any turning manoeuvre.

In the next step of the operation, the left-hand traffic lane can be rehabilitated just as easily with the machine moving in the direction of traffic.

Dual flush-to-kerb milling

The W 200 H / W 200 Hi large milling machine features a zero-clearance side not only on the right but also on the left side, enabling it to mill right up close along obstacles such as safety barriers, kerbs or building walls. The W 200 H / W 200 Hi plays this big trump card in particular on narrow roads where turning manoeuvres are not possible and the machine can move with the flowing traffic only. Whether left or right – the large milling machine is capable of milling right up close to the road boundary on both machine sides.

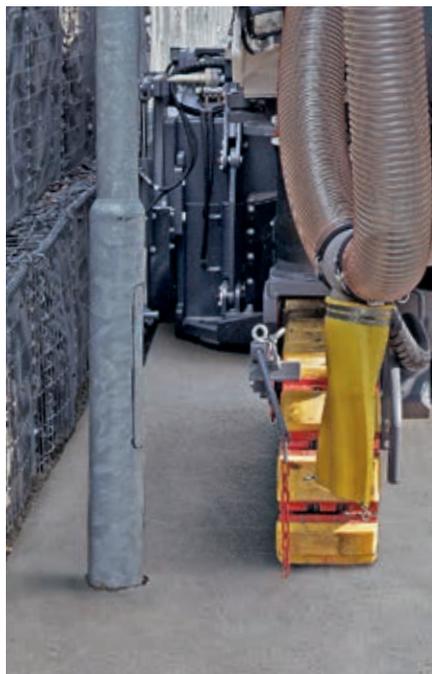
A typical application: milling dual-lane roadways with safety barriers installed on both sides and traffic passing along on the adjacent lane. The W 200 H / W 200 Hi mills right up close to the safety barriers on the left and right even though it cannot turn around due to the lack of space. Trucks removing the milled material can pull out of and merge into the flowing traffic without having to perform dangerous turning manoeuvres.

Milling drum unit can be moved by 800 mm

Key to success in narrow sections

The milling drum unit installed in the W 200 H / W 200 Hi can be moved by 400 mm each to the left and right hydraulically. The advantages are obvious: during the milling process, the machine operator can precisely adjust the course of the milling edge and simply mill around road fixtures such as manhole covers, storm drains, streetlamps or similar.

Depending on site conditions, the movable milling drum unit additionally enables optimum positioning of the track units next to the milling edge.



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The milling drum unit can be moved by 400 mm each to the left and right.

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Milling around obstacles poses no problem at all.

Vacuum cutting system offers a high level of operator comfort



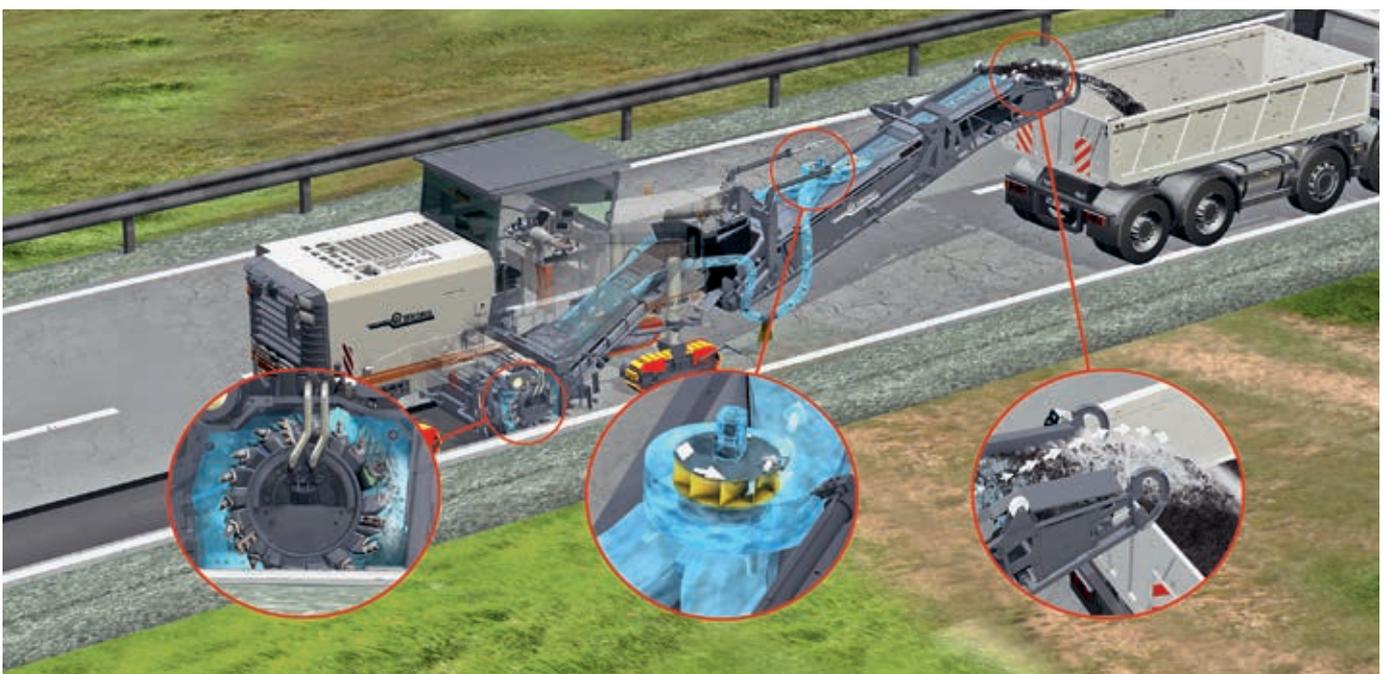
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The centrifugal fan draws in the fine particles via hoses fitted on the side of the machine.

A clean job

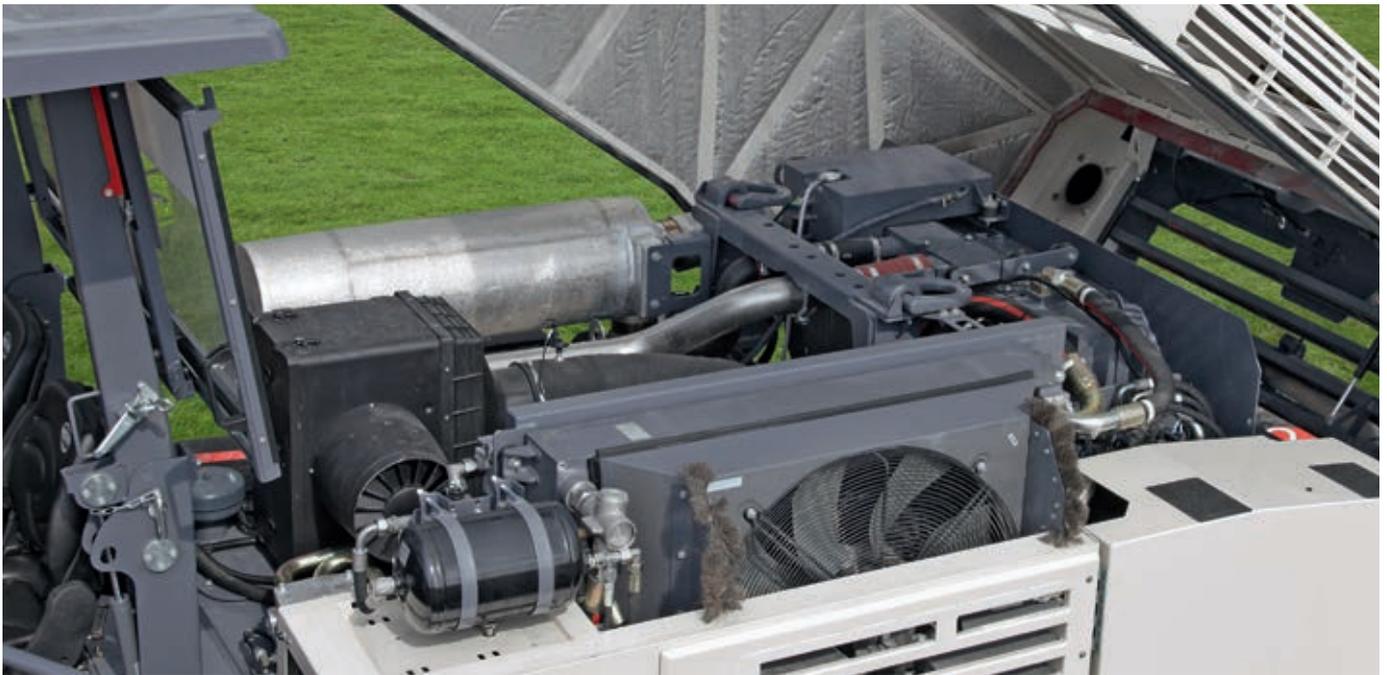
When designing the W 200 H / W 200 Hi, particular importance was placed on the health and well-being of the operating crew. As a result, the cold milling machine can be fitted with the vacuum cutting system to extract fine material particles. Its principle is simple: by creating a negative pressure in the drum housing, the mix of air and water vapour is evacuated from the housing and then fed back into the flow of the milled material on the discharge conveyor via a hose system.

It goes without saying that better air quality and visibility in the working environment of the machine operator and ground crew significantly improve operator comfort and boost staff performance.

Reduced contamination of components such as the engine or air filter results in savings in the replacement of spare parts. The extraction system pays off quickly also because less effort needs to be put into cleaning the machine.

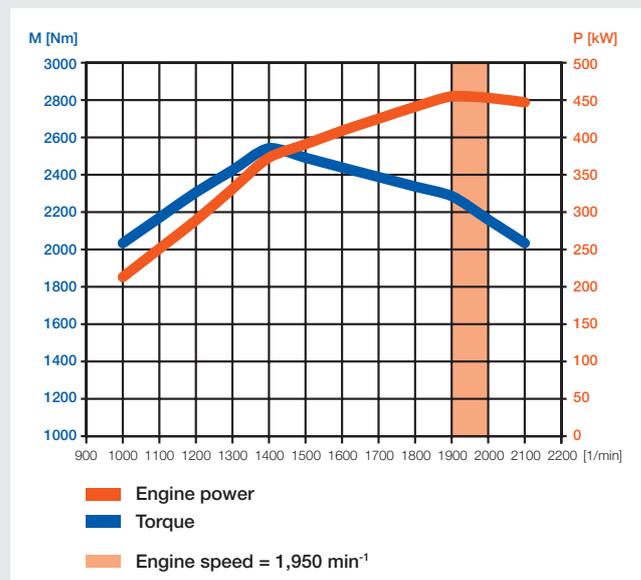


Complying with the strictest emission standards



W 200 H – high-performance engine technology

- › The engine technology used in the W 200 H cold milling machine complies with the emission standards of EC Stage 3a/US Tier 3 or lower.
- › The W 200 H is equipped with a powerful, economical ECO diesel engine.
- › Thanks to the fully electronic WIDRIVE machine management system, the engine of the W 200 H always works in the optimal performance and torque ranges, at extremely low fuel consumption rates and low operating costs.

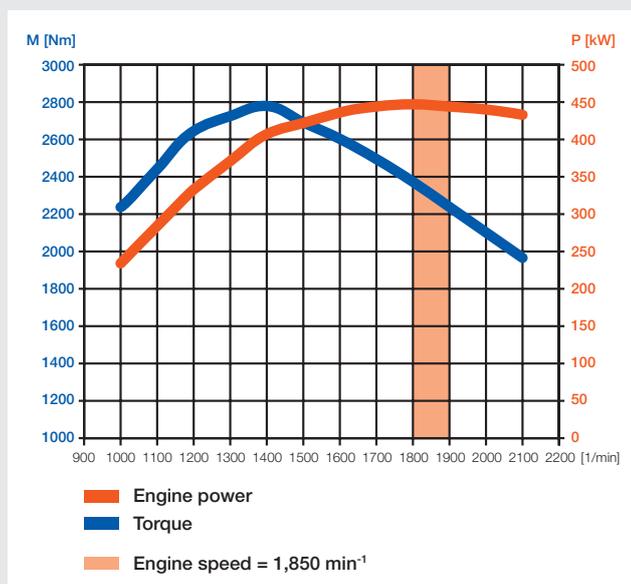




The engine technology used in the W 200 Hi, which complies with emission standards EC Stage 3b/US Tier 4i, is characterized by additional exhaust gas after-treatment:

- Combined two-way catalytic converter and diesel particulate filter for low pollutant emissions
- Special “direct-flow” air filters for extended uptimes
- Diesel engine with cooled exhaust gas recirculation and variable turbocharger geometry for high torque at low engine speeds
- Pollutants are minimized by 90%

Engine of W 200 Hi cold milling machine



W 200 Hi – optimizing environmental protection

- The W 200 Hi features state-of-the-art engine technology for extremely low environmental emission levels, complying with the stringent specifications of exhaust emission standards EC Stage 3b/US Tier 4i.
- To ensure effective exhaust gas purification, the engine installed in the W 200 Hi is fitted with a combined two-way catalytic converter and diesel particulate filter.
- The WIDRIVE machine management system guarantees consistently high performance levels even under full load.
- Operating costs of the W 200 Hi are reduced further by the machine’s intelligent diesel engine control.

Maximum loading performance

Reliable loading regardless of the working situation

The W 200 H / W 200 Hi is equipped with a powerful, technically mature conveyor system. This is proven by many useful features, such as the extremely large slewing angles, wide belts, height-adjustable gradation control beam and variable belt speed, which ensure a flexible response to any situation encountered on the job site.

And when there is no milling activity, the intelligent WIDRIVE machine management system saves costs by adjusting the mode of operation: conveyor operation is stopped automatically when reversing and in transport mode. In addition, the diesel engine switches to idle speed in specific situations, for instance, when changing trucks during the milling operation or when stopping the machine's traction drive.



Extremely wide slewing angles of 60° each to the left and right for highest flexibility during material loading.

Heavy-duty, hydraulically lifting gradation control beam in front of the milling drum.

Moving on to the next job in no time



Hydraulically operated folding conveyor with intelligent locking system for added safety.

At the push of a button: folding down the protective canopy hydraulically for transport.



Transport height of 2.9 metres only

The W 200 H / W 200 Hi large milling machine has a transport height of only 2.9 metres.

The fold-down protective canopy minimizes transport height of the machine.

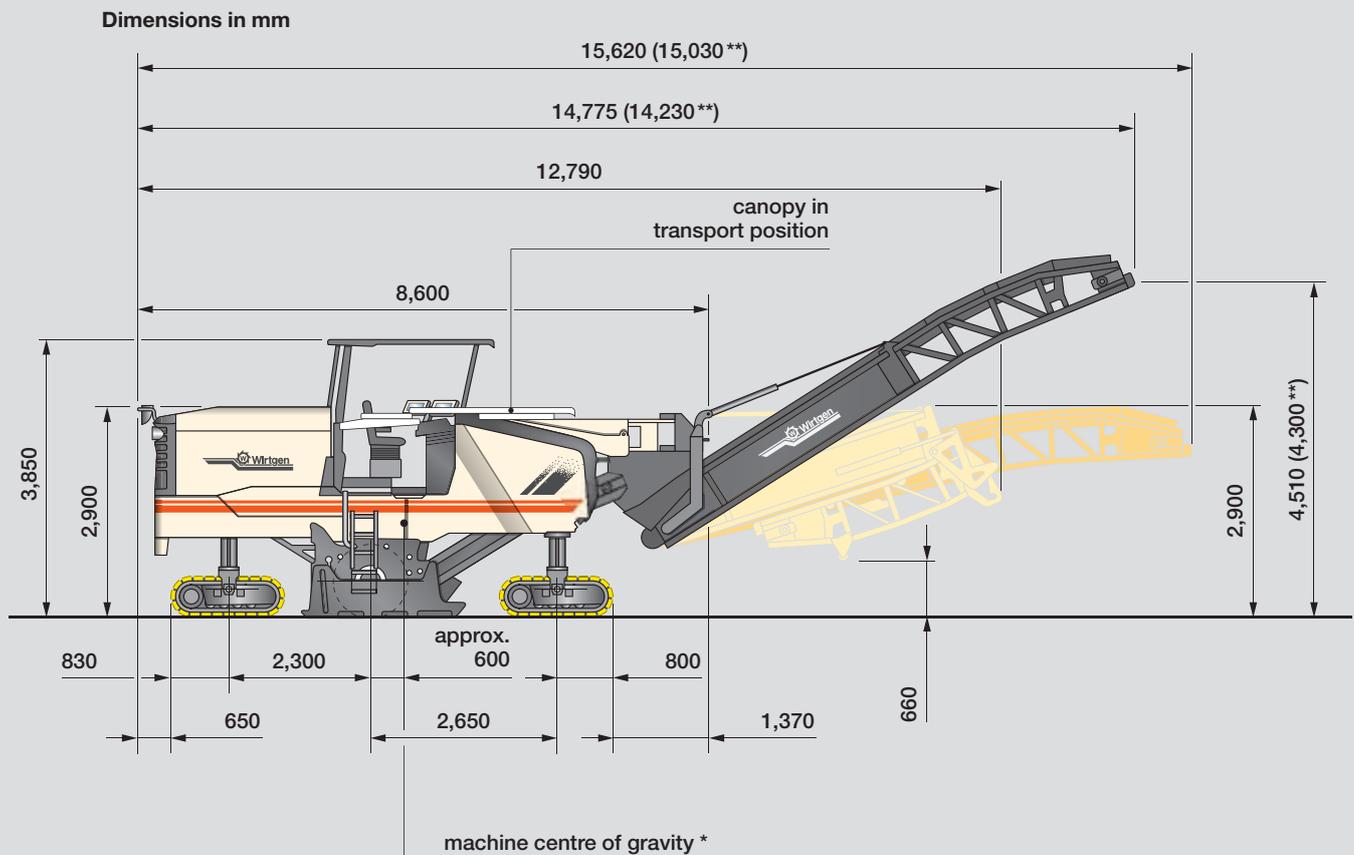
In hydraulically folding design, the conveyor allows the use of shorter transport vehicles.

Sturdy loading and lashing lugs enable the machine to be safely loaded by crane or lashed down on a flatbed truck.



Technical specification

W 200 H/W 200 Hi



* = based on operating weight, CE, with conveyor folded out

** = based on machine with short conveyor

Machine weights

Empty weight of machine without filling media	28,200 kg
Operating weight, CE*	30,180 kg
Operating weight, max. (full tanks, full range of equipment), milling width 2,100 mm	33,940 kg

Weights of filling media

Water tank filling in kg	3,000 kg
Diesel tank filling in kg (0.83 kg/l)	750 kg

* = weight of machine with half-full water tank, half-full fuel tank, driver (75 kg) and on-board tools

Optional equipment features increasing/reducing empty weight

Driver and tools

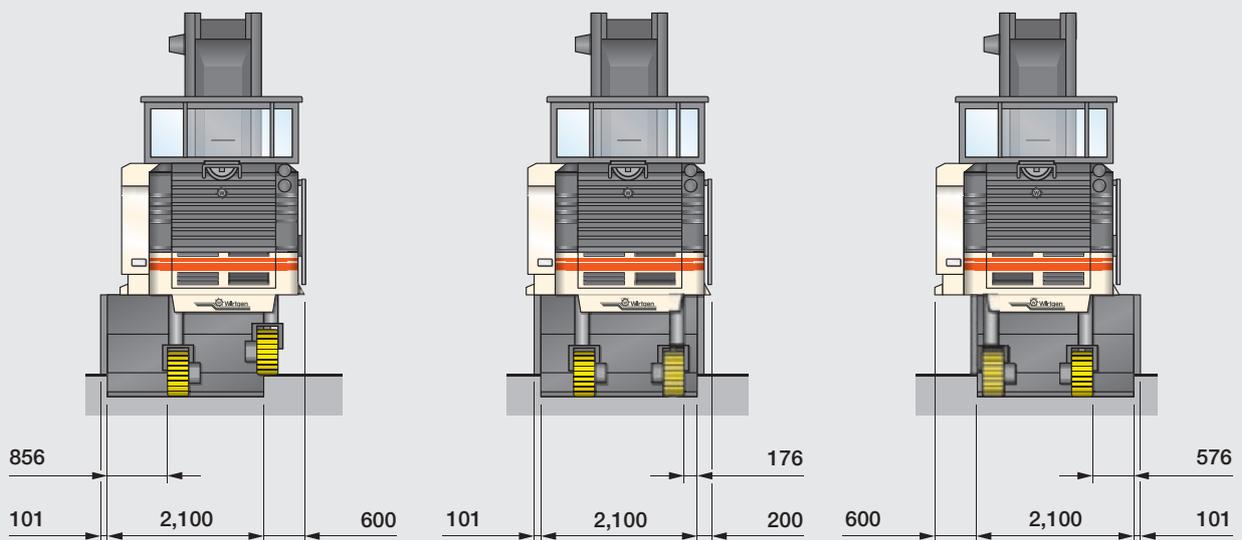
Driver	75 kg
Weight of 5 cutting tool containers	125 kg
On-board tools	30 kg

Optional milling drums in lieu of standard

Milling drum, milling width 2,100mm, tool spacing 6x2	490 kg
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Optional additional equipment

Operator's platform with comfortable seats in lieu of standard	250 kg
Canopy in lieu of standard	280 kg
Folding conveyor in lieu of standard	520 kg
VCS – Vacuum Cutting System	220 kg



Milling drum assembly left

Milling drum assembly in neutral position

Milling drum assembly right

Equipment features of W 200 H/W 200 Hi

Standard equipment

Basic machine

- › Machine frame with dual wasp waist
- › Hydraulically opening, soundproof engine cowling
- › Air compressor system
- › Battery-operated hydraulic module for hydraulic cylinder functions and for emergency functions
- › Automatically engaging high-pressure water system, 18 bar, 67 l/min
- › Engine cooling system with temperature-governed fan speed
- › Storage compartments for cutting tool containers
- › Standard painting in Wirtgen white with orange stripes

Milling drum assembly

- › Laterally movable milling drum assembly with two zero-clearance sides
- › Three electrically engageable milling drum speeds
- › Hydraulic gradation control beam with conveyor lift function
- › Hydraulically adjustable scraper blade with manual locking mechanism
- › Hydraulically lifting edge protection plates
- › Electrically engageable water spray bar in milling drum assembly
- › Drum turning device for cutting tool replacement

Milling drums

- › Milling drum, milling width 2,100 mm, HT22 quick-change toolholder system, tool spacing 15 mm
- › Multiple-use ejectors

Loading of milled material

- › Conveyor system with adjustable conveying speed
- › Water spray system at the primary conveyor

Machine and levelling control

- › Clearly structured main control panel with functional switches
- › Multi-functional control screen including display of major machine parameters
- › Multifunctional truck loading indicator integrated in control screen
- › Diagnostic system included in control screen
- › Automatically engaging milling power control unit

- › Two exterior control panels for operation by ground staff
- › Digital height indicator
- › Pre-installation for up to 7 levelling sensors per machine side

Operator's platform

- › Anti-vibration mounted operator's platform
- › Convenient, individually adjustable control panel
- › Dual access to operator's platform
- › Stand-up seat, left and right
- › Lockable covers for control panels
- › Two mirrors at the front, one mirror at the rear of the machine

Chassis and height adjustment

- › PTS – machine is aligned parallel to the pavement surface automatically
- › ISC – intelligent crawler track speed control through hydraulic four-track drive
- › Fourfold full-floating axle for high machine stability
- › Four-track steering with freely selectable steering modes
- › Extremely wear-resistant EPS polyurethane track pads

Miscellaneous

- › Lighting package with 11 working spotlights
- › Four LED lights in the area of the milling drum unit
- › "Welcome" and "Go home" lights feature including LED lighting in the area of the operator's platform
- › Comprehensive toolkit in lockable toolbox
- › Safety package with 6 emergency stop switches
- › European design type certification, GS mark (Geprüfte Sicherheit = Tested Safety) and CE conformity
- › Standard warranty of 12 months or 1,000 engine operating hours
- › Machine commissioning by qualified personnel
- › Comprehensive operating manual and machine documentation

Optional equipment

Basic machine

- › Special painting in one or several colours

Milling drum assembly

- › Pneumatic cutting tool driver and extractor
- › Max. two electro-hydraulically operated cutting tool extractors
- › Fold-out additional seats at the rear crawler tracks for cutting tool replacement

Milling drums

- › Milling drum, milling width 2,100 mm, HT5 toolholder system, tool spacing 6x2 mm
- › Mounting carriage for milling drums

Loading of milled material

- › Hydraulically folding discharge conveyor
- › Belt conveyor in folding design, short
- › VCS - Vacuum Cutting System

Machine and levelling control

- › LEVEL PRO automatic levelling system with hydraulic milling depth sensors at the side plates, left and right
- › Additional LEVEL PRO control panels
- › Milling depth measurement via sensor package and display on LEVEL PRO screen
- › RAPID SLOPE cross slope sensor
- › Display of actual milling depth
- › Multiplex system including two additional ultrasonic sensors
- › Multiplex system including four additional ultrasonic sensors
- › Pre-installation of laser sensor including laser signal receiver but excluding laser signal transmitter
- › Pre-installation for 3D GPS levelling including receiver mast

Operator's platform

- › Individually adjustable, comfortable driver's seats, left and right
- › Operator's platform heating by conducting warm air into the footwell area
- › Electrically folding mirrors with stop-and-go indicator
- › Hydraulically extendable and retractable canopy

Miscellaneous

- › Screen system including display
- › Electrically operated diesel tank filling pump
- › Hydraulically operated water tank filling pump
- › Lighting package with five halogen and six LED spotlights
- › Large storage compartment in lieu of standard storage compartment at the rear of the machine
- › Hydraulically operated high-pressure water cleaner, 150 bar, 15 l/min
- › Supplementary weight, 1,100 kg
- › Cold-start system for diesel engine

Technical specification

W 200 H/W 200 Hi

Milling drum		
Milling width	2,100 mm	
Milling depth *1	0–300 mm	
Tool spacing	15 mm	
Number of tools	190	
Drum diameter with tools	900 mm	
Engine	W 200 H	W 200 Hi
Manufacturer	CUMMINS	
Type	QSX15	
Cooling	water	
Number of cylinders	6	
Rated power at 2,100 min ⁻¹	447 kW/600 HP/608 PS	433 kW/580 HP/589 PS
Maximum power	at 1,900 min ⁻¹ 455 kW/610 HP/619 PS	at 1,800 min ⁻¹ 447 kW/600 HP/608 PS
Displacement	15 l	15 l
Fuel consumption at rated power	116 l/h	116 l/h
Fuel consumption in field mix	46 l/h	46 l/h
Emission standards	EC Stage 3a/US Tier 3	EC Stage 3b/US Tier 4i
Electrical system	24 V	
Tank capacities		
Fuel tank	900 l	
Hydraulic fluid tank	400 l	
Water tank	3,000 l	
Driving properties		
Travel speed in milling and travel gear, max	0–85 m/min (5 km/h)	
Crawler tracks		
Crawler tracks (L x W x H)	1,630 x 260 x 590 mm	
Loading the milled material		
Belt width of primary conveyor	800 mm	
Belt width of discharge conveyor	850 mm	
Theoretical capacity of discharge conveyor	375 m ³ /h	
Shipping dimensions		
Machine (L x W x H)	8,590 mm x 2,500 x 2,900 mm	
Discharge conveyor, long design (L x W x H)	7,900 x 1,450 x 1,500 mm	

*1 = the maximum milling depth may deviate from the value indicated, due to tolerances and wear





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