



Efficient milling in the 2-m class

Cold Milling Machine W 1900



Economic efficiency guaranteed – the multi-purpose W 1900

Compact, lightweight, dependable

The scope of activity of the lightweight W 1900 cold milling machine extends from a wide variety of fine milling applications and the large-scale rehabilitation of surface courses all the way to the complete removal of asphalt packages at full depth.

The machine masters all of these challenges with superior ease, producing high-quality milling results at exceptionally low operating costs. The tried-and-tested Flexible Cutter System (FCS) Light provides economically efficient solutions for all fine milling applications. The powerful W 1900 additionally impresses with hard-wearing design, simple repair and maintenance procedures and easily comprehensible handling.



Machine operators are on the road to success with the efficient cold milling machine W 1900.

The machine's large water tank is a useful option for long, non-stop milling operations.



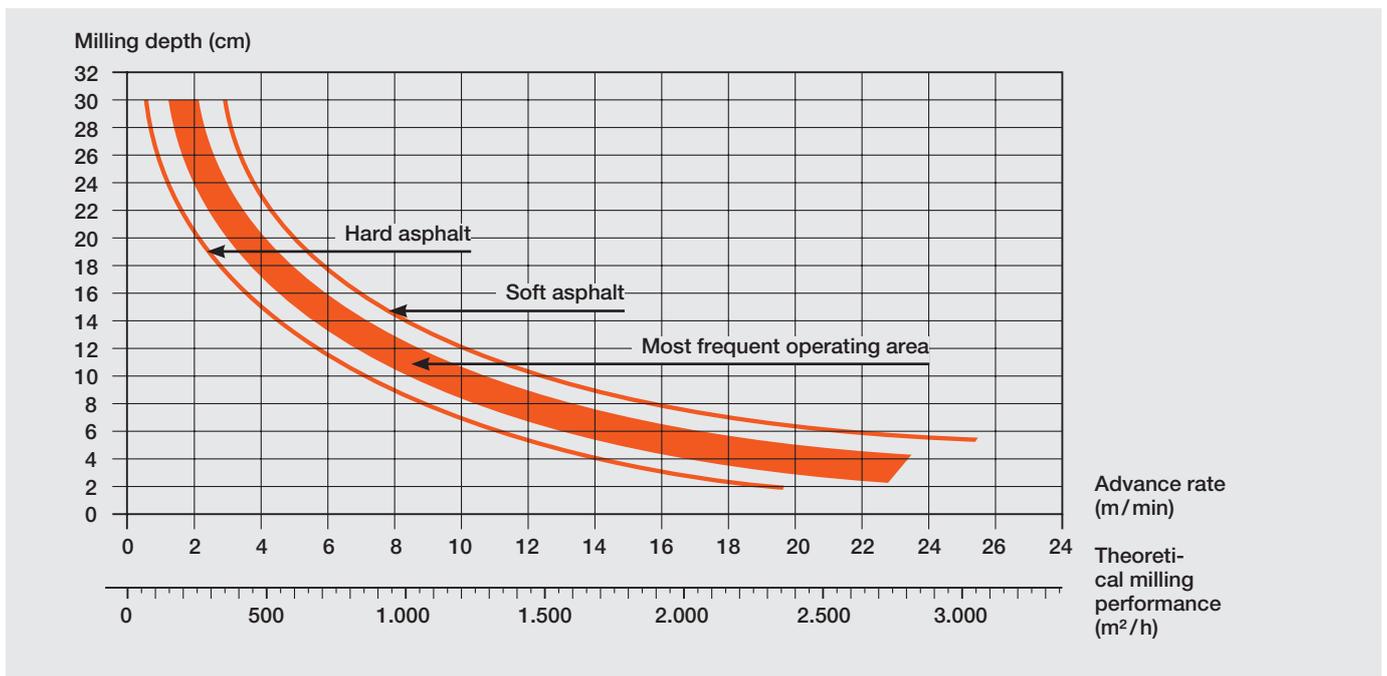
Minimized operating cost

- As an alternative to the cold milling machines of the 2-m class, the W 1900 is capable of removing entire pavements at a depth of 32 cm in one single machine pass.
- The powerful front loading system fully meets the requirements of transporting the milled material from the drum housing quickly and reliably.
- LEVEL PRO, the automatic levelling system specially developed for milling operations, provides highly accurate milling results of superior quality.
- The machine's compact design ensures ease of transport, good view and superb manoeuvrability.



Tremendous milling performance
comes as a standard feature





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Theoretical milling performance of the W 1900 cold milling machine.

Removing asphalt packages at depths of up to 320 mm. >



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Perfect milling results in the removal of thin pavement layers.

Versatility plus high performance

The performance diagram for the W 1900 is an effective tool for the machine user, as it enables him to roughly estimate the expected theoretical milling performance. Our large milling machine is capable of removing asphalt packages at

milling depths of up to 320 mm easily in just a single machine pass. The compact W 1900 makes the most of its potential also when used for the large-scale removal of surface courses. It achieves a tremendous daily production rate

of up to 10,000 m² in the field when removing 40 mm thick asphalt layers. The diagram gives impressive proof of the high milling performance which can be achieved with the W 1900 machine.

Ease of operation – high milling performance

Ergonomically and clearly designed operator's platform

Milling machine operators can familiarize themselves with the control system of the W 1900 in no time at all as handling requires only a few simple steps: the controls are arranged within easy reach and within the operator's immediate field of vision, and are labelled in a clear and language-neutral fashion. In addition, two steering wheels enable operation from the left or the right.

The compact design offers a good overall view of both the machine and construction site at all times. We have attached particular importance to an ergonomically designed workplace, as the spacious, walk-through operator's platform is fully vibration-damped and can be safely accessed from both sides. These are all features to improve not only concentration on the work quality but productivity as well.





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The seat can be moved out over the right side of the machine, placing the operator in an ideal working position.

Highly convenient: the protective canopy can be folded down for transport at the push of a button. v



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Two operating consoles with optimized arrangement of the controls.

Automatic levelling system LEVEL PRO meets all requirements

For highly precise, high-quality milling

At the customer's request, the W 1900 is equipped with the automatic levelling system LEVEL PRO which has been specially developed for milling operations: LEVEL PRO achieves as yet unrivalled, top-quality milling results! The state-of-the-art system enables the levelling mode to be changed during operation, and additional sensors can easily be integrated into the ongoing milling process. Ultimately, these refinements result in perfectly precise milling depth and inclination.

Another mark in favour of LEVEL PRO is the system's extremely simple, user-friendly operation: Clearly arranged, large and self-explanatory function keys offer maximum operating convenience.

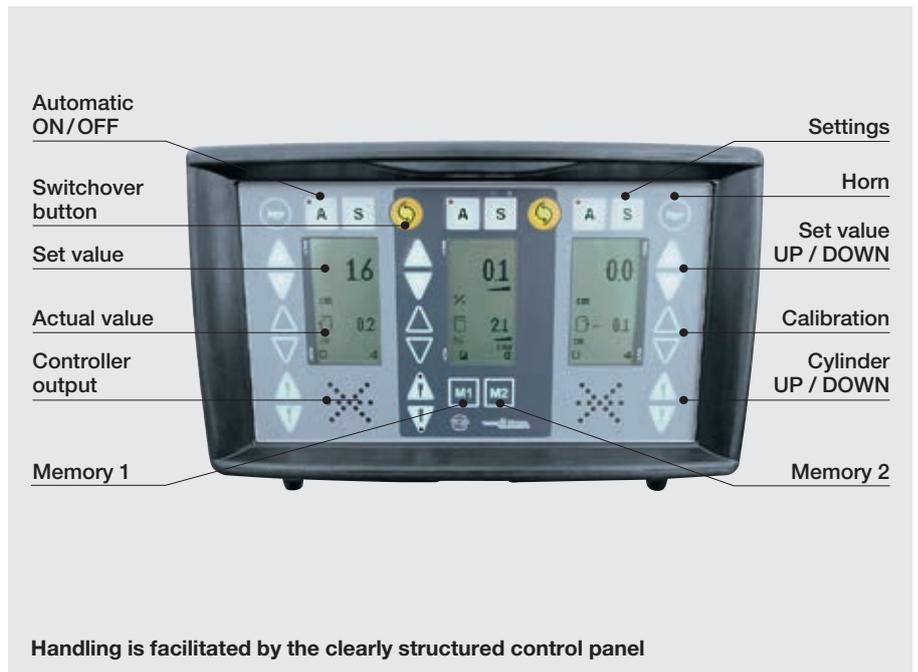


Electronic slope sensor for the milling of predefined pavement cross slopes.



Wire-rope sensor for precise, automatic milling depth control.





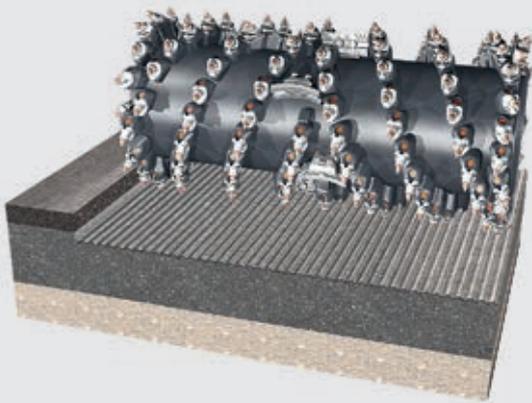
Handling is facilitated by the clearly structured control panel

Levelling system of the latest generation

- › Different types of sensors, such as wire-rope sensor, slope sensor or ultrasonic sensor, can be selected or de-selected during the milling operation as required.
- › Control of the milling depth can be effected by sensing along a wire with a transducing sensor, or by non-contact sensing of a wire or reference surface.
- › Set and actual values of the left and right milling depths and of the cross slope are shown on large, easy-to-read screens.
- › Set values can be pre-programmed on both sides, saved in the system's memory and called up as required.

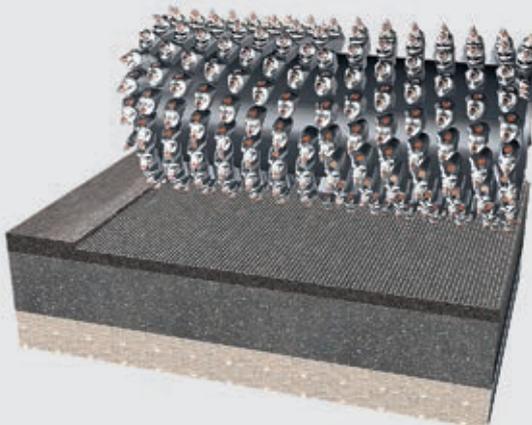


Versatile drum assembly guarantees full utilization of the W 1900's capacity



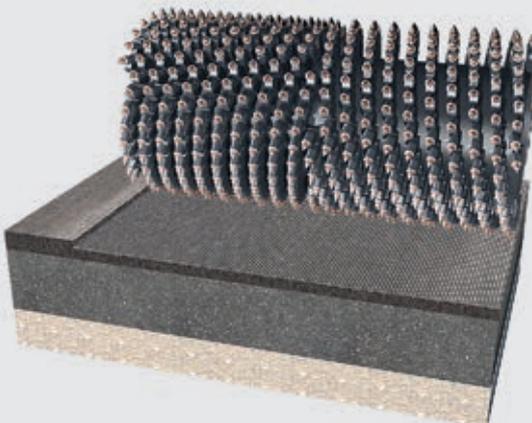
FCS milling drum

Milling width: 2,000 mm
Milling depth: 0–320 mm
Tool spacing: 15 mm



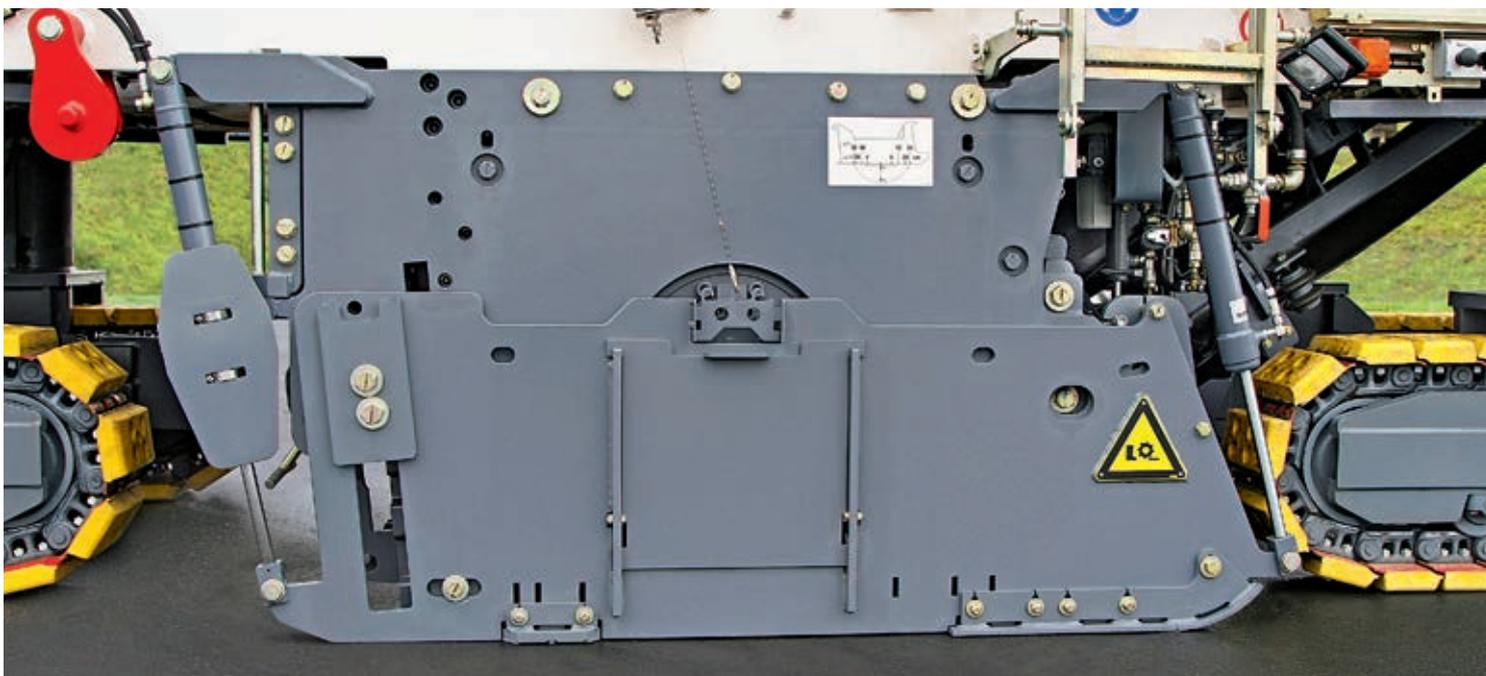
FCS fine milling drum

Milling width: 2,000 mm
Milling depth: 0–100 mm
Tool spacing: 8 mm



FCS micro fine milling drum

Milling width: 2,000 mm
Milling depth: 0–30 mm
Tool spacing: 6 x 2 mm



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The lifting side plates reliably seal off the drum housing when in working position.

Wide range of applications with FCS Light

The W 1900 goes it alone on the construction site when equipped with FCS Light. The field-proven system offers a broad range of applications, for it enables milling drums of equal width but with different tool spacings to be changed quickly and easily. A wide variety of additional jobs in the surface treatment of road pavements can thus be carried out economically with fine milling ap-

plications. The milling drum assembly scores top marks also with the hydraulically height-adjustable side plates, which permit milling along road fixtures. Not to forget the hydraulically adjustable scraper blade: it is adjustable in height in order to load all or part of the milled material, or to leave it behind in the milled cut.

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The full range of FCS Light milling drums.

Milling economically with the HT22 quick-change toolholder system

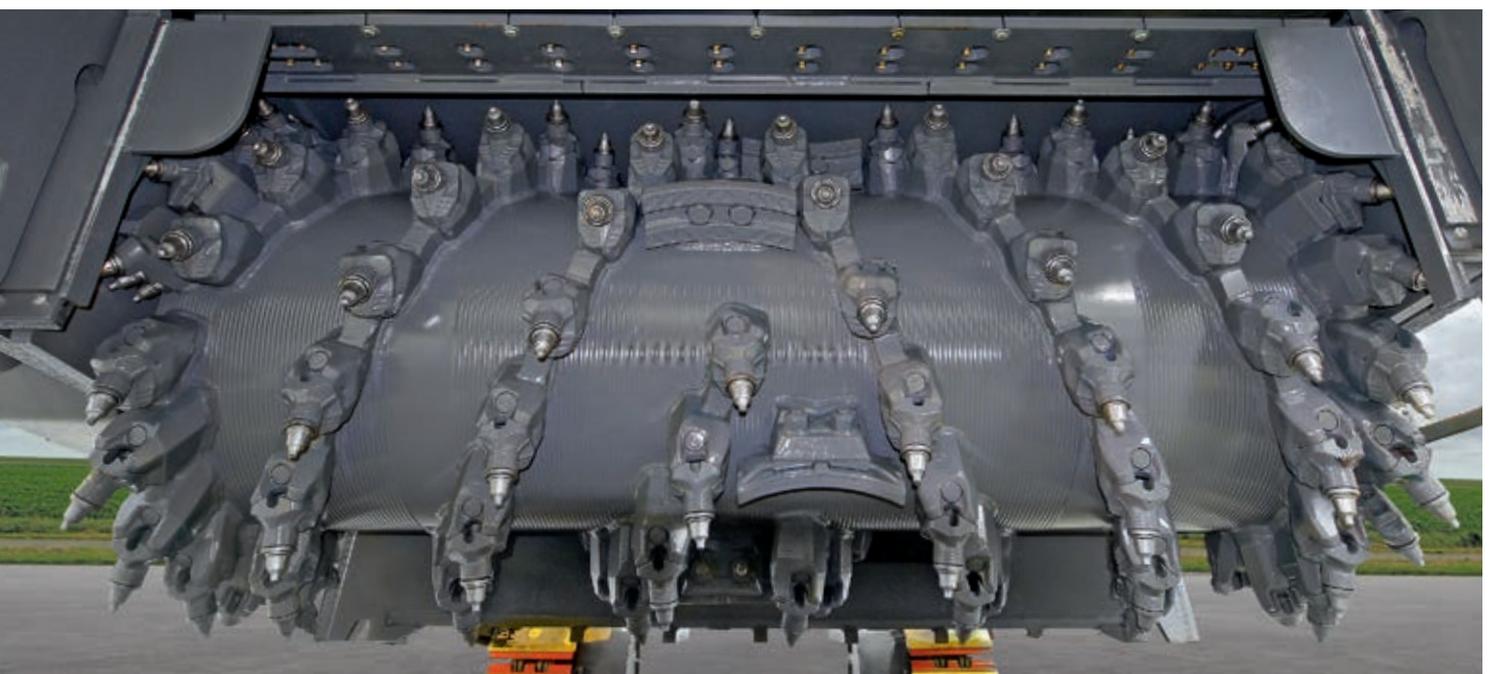
Heavy-duty technology

The patented HT22 quick-change toolholder system impresses with high wear resistance in day-to-day operation on the job site, easy handling and additional tool cooling provided by an optimized toolholder design – to name just a few of its many advantages. It optimizes productivity and cuts operating costs. The integrated water spray system effectively prevents the formation of dust during the milling operation and cools the cutting tools, thus extending their service life.

Additional features, such as the hydraulically opening scraper blade, fold-out seats located between the rear track units, and the combined pneumatic cutting tool driver and extractor, ensure quick and easy replacement of cutting tools.

The intelligent HT22 quick-change toolholder system offers lots of application benefits. >

Optimized toolholder arrangement on the milling drum ensures a clean milling texture. v





- ① Wear markings with 5 mm spacing
- ② 100 % increased maximum wear path
- ③ Increased wear volume in the head
- ④ Wear-resistant head design
- ⑤ Optimised shaft angle geometry for increased component strength
- ⑥ Around 6 % greater shaft cross section for considerably greater resistance to shaft breakage
- ⑦ Protective plugs for screw drive
- ⑧ Optimised screw geometry for simple and safe mating up
- ⑨ Optimised welded joints with increased strength, yet at the same time with enough flexibility for optimum pick rotation
- ⑩ Improved protection of the bottom part thanks to complete coverage of the upper part
- ⑪ Around 67 % greater upper part contact surface to the bottom part for longer bottom part service life
- ⑫ Seal between upper and bottom parts for easy and quick installation and removal of the upper part

Fit for the big jobs with powerful material loading

The W 1900's powerful conveyor system keeps lots of trucks busy

Fast removal of the milled material is of vital importance for the successful completion of any milling job site. To accomplish this task, the W 1900 is equipped with a generously dimensioned two-stage front-loading system. The primary conveyor receives the milled material in the milling chamber, transports it to an effectively sealed point of transfer and from there to the discharge conveyor.

The steep-incline conveyor is fitted with sturdy ribs and powerfully loads the milled material on waiting trucks even under full load. The system's flexible discharge conveyor meets all practical requirements, because it can be adjusted in height and slewed by 45° to either side. This high degree of flexibility makes child's play also of loading the milled material to the side.





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The machine has an exceptionally large slewing radius to the left ...



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... and to the right.

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The powerful conveyor system transports large quantities of milled material.

The folding conveyor reduces the machine's transport length. v



Making swift headway even on sites where space is limited

The agile W 1900 is in full control where space is limited

The manoeuvrability of a large milling machine is of vital importance on job sites where space is limited. Whether loading, manoeuvring or turning the machine, or milling in bends, on winding roads or urban roads with fixtures: The compact W 1900 masters tight radii with superior ease thanks to its hydraulic, finger-light, all-track steering with large steering angles.

The tried and tested steering system enables the machine to move into position quickly and to precisely mill along a specified cut. In addition, an engageable differential lock guarantees consistently high traction even when working on difficult ground. The four track units can be separately adjusted in height hydraulically, thus ensuring ample ground clearance.



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

Precise steering is guaranteed by a height-independent, parallel sliding block guide.



Wide-opening panels facilitate maintenance procedures.

Ease of maintenance is part of the machine's basic equipment package



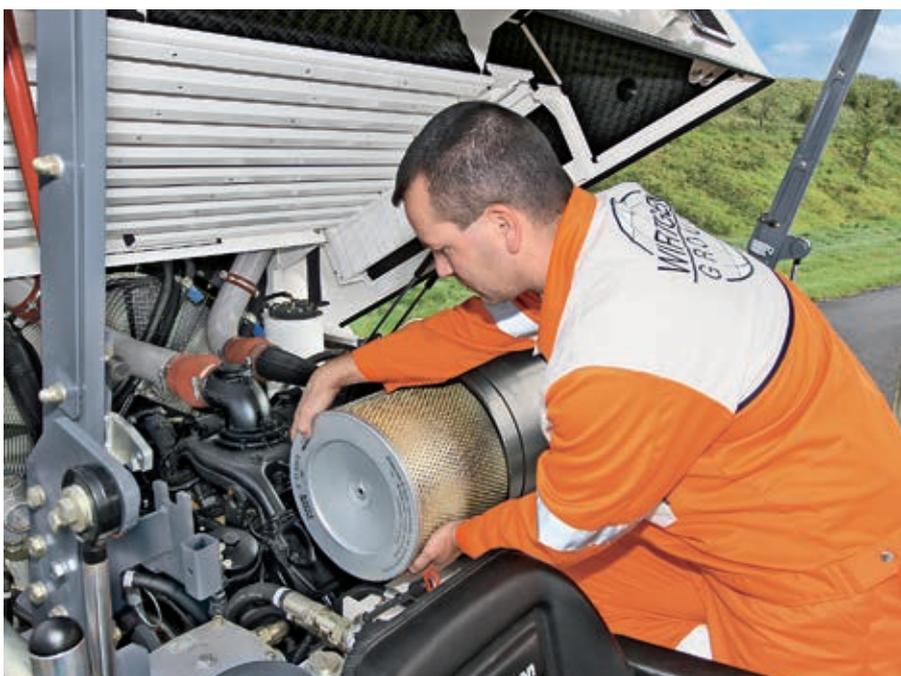
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All points of maintenance provide easy access from the operator's platform or from the ground.

Ample space for carrying out all maintenance work.
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Gain valuable operating time

Maximum machine availability is of central importance for achieving consistently high daily production rates on the milling site. That's why we have geared the W 1900 for fast, easy maintenance. Opening the engine cowling provides direct and convenient access to the small number of intelligently arranged points of inspection and maintenance.

All maintenance procedures are completed swiftly and easily, enabling the profitable milling operation to continue as quickly as possible. In addition, the machine comes complete with a comprehensive tool kit which can be kept in lockable storage compartments.

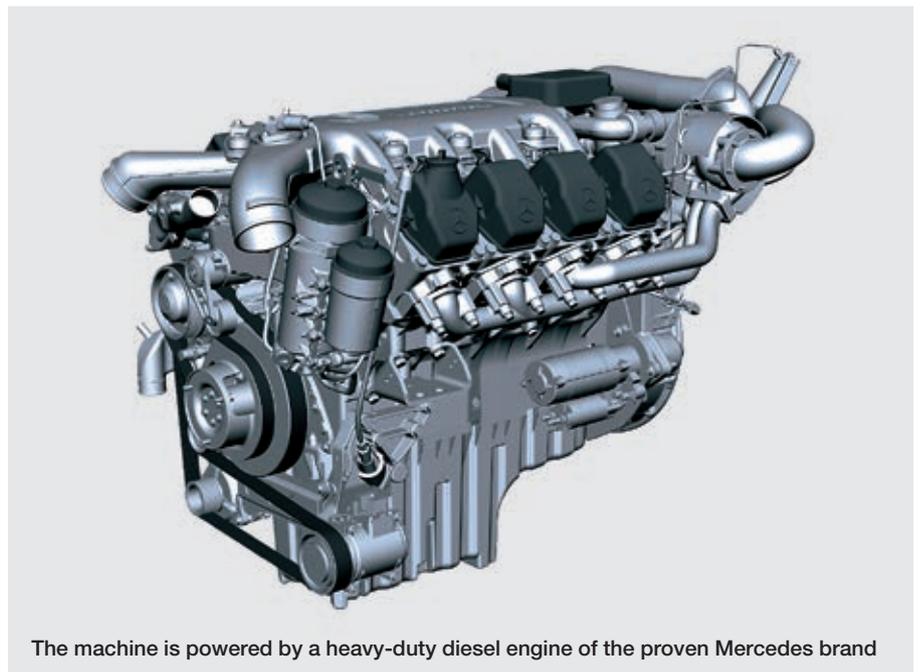


Intelligent engineering – high-quality components and production

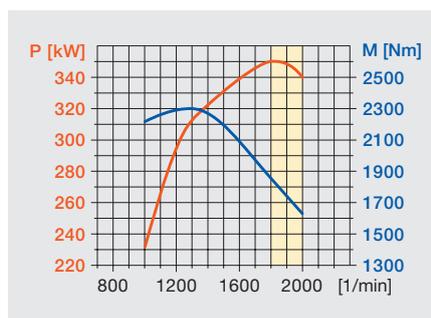
We rely on quality “made in Germany”

In the process of selecting vendor components for the W 1900 large milling machine, we consider only those manufacturers who can guarantee highest quality criteria in terms of the durability, failure safety and strength of their products. As a result, we provide our cold milling machine mostly with high-quality high-tech components bearing the “Made in Germany” hallmark.

A prime example of this is the high-performance diesel engine from Mercedes – it impresses with high traction and low fuel consumption rates. The machine’s fully electronic engine management system additionally ensures maximum torque stability.



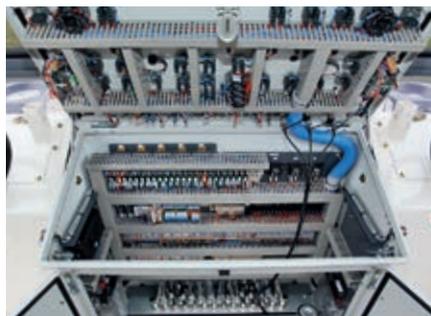
The machine is powered by a heavy-duty diesel engine of the proven Mercedes brand



Ideal characteristic curve: extreme engine lugging results in an increase of engine output and torque.

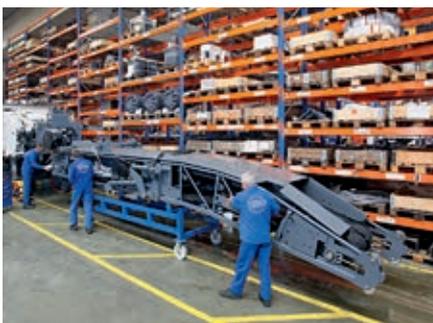
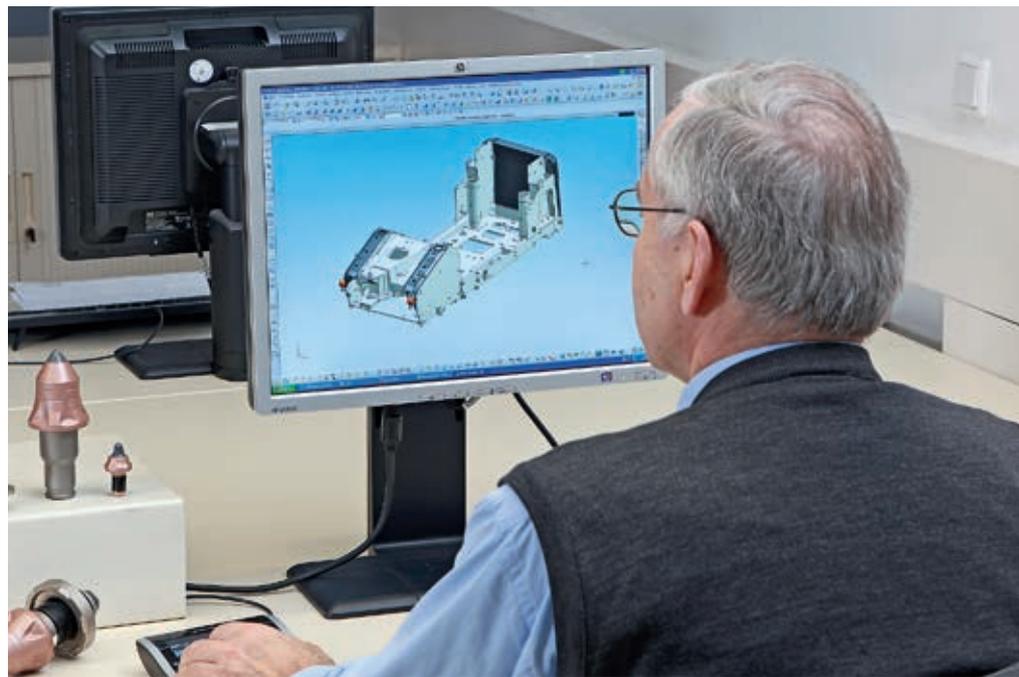


Electrical cabinet and hydraulic components made in Germany.



Engineering and design in the German main plant. >

Original spare parts from Wirtgen can be supplied worldwide at extremely short notice. <



Final assembly is performed by skilled expert staff. >

High quality, worldwide customer service

- > Highly qualified German engineers and technicians are in charge of engineering and design of the W 1900 machine.
- > High-quality components guarantee the maximum operational availability and robustness of our large milling machine.
- > The machines are manufactured in state-of-the-art production facilities by highly qualified expert staff and in mature production processes.
- > The global Wirtgen service network enables service technicians to be on location quickly, however remote the construction site.

Technical specification W 1900

Milling drum	
Milling width	2,000 mm
Milling depth *1	0–320 mm
Tool spacing	15 mm
Number of tools	162
Drum diameter with tools	980 mm
Engine	
Manufacturer	Daimler Chrysler
Type	OM 502 LA
Cooling	water/air (intercooler)
Number of cylinders	8
Rated power at 2,000 min ⁻¹	340 kW/455 HP/462 PS
Maximum power at 1,800 min ⁻¹	350 kW/469 HP/476 PS
Displacement	15.9 l
Fuel consumption, full load	84 l/h
Fuel consumption in field mix	34 l/h
Emission standards	EPA Tier 3, EC Stage 3a
Electrical system	24 V
Tank capacities	
Fuel tank	850 l
Hydraulic fluid tank	270 l
Water tank	1,600 l (+ 1,000 l additional water tank)
Driving properties	
Travel speed in milling gear, max.	0–29.5 m/20 min
Travel speed in travel gear, max.	0–4.5 km/h
Crawler tracks	
Crawler tracks (L x W x H)	1,600 x 260 x 550 mm
Loading the milled material	
Belt width of primary conveyor	800 mm
Belt width of discharge conveyor	800 mm
Theoretical capacity of discharge conveyor	290 m ³ /h
Shipping dimensions	
Machine (L x W x H)	6,600 x 2,550 x 3,000 mm
Discharge conveyor (L x W x H)	8,500 x 1,300 x 1,150 mm

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

Equipment features of W 1900

Standard equipment

Basic machine

- › Air compressor system
- › Large storage compartments for cutting tool containers
- › Highly effective soundproofing of entire engine compartment
- › Standard painting in Wirtgen white with orange stripes

Milling drum assembly

- › Hydraulically lifting drum plates
- › Additional lock-valve for scraper blade
- › Additional control switches for scraper blade and steering functions at ground level
- › Right-hand side plate in hinged design
- › Hydraulically opening scraper blade with convenient lock mechanism
- › Replaceable wearing segments on side plates
- › Hydraulically lifting side plates, clearance 330 mm

Milling drums

- › Standard assembly with milling width 2,000, HT22
- › Multiple-use ejector system

Loading of milled material

- › Discharge conveyor slewing angle left 45 degrees
- › Discharge conveyor slewing angle right 45 degrees
- › Conveyor system with adjustable conveying speed
- › Hydraulically lifting primary conveyor

Machine and levelling control

- › Digital electric height indication
- › Automatically engageable hydraulic traction control (flow divider)
- › Automatically engaging maximum milling speed control
- › Freely selectable steering modes of crawler tracks
- › Automatically engaging high-pressure water system, 3.5 bar, 45 l/min
- › Engaging water injection in milling chamber
- › Engaging water spray system at primary conveyor

Operator's platform

- › Convenient control panel with practical switches
- › Lockable covers for control panels
- › Individually adjustable driver's seat
- › Vibration-damped operator's platform
- › Access left and right with convenient fold-away ladder
- › Exterior rear view mirror

Chassis and height adjustment

- › Extremely wear-resistant polyurethane track pads
- › 4-track steering
- › Height adjustment via proportional valve control

Miscellaneous

- › Lighting package with 11 spotlights
- › Comprehensive tool kit
- › Comprehensive safety package with 5 emergency stop buttons

Optional equipment

Basic machine

- › Special painting in one or several colours

Milling drum assembly

- › Milling drum housing for milling width 2,000 mm, FCS-Light
- › Pneumatic cutting tool driver and extractor
- › Mounting carriage for milling drums

Milling drums

- › Milling drum with milling width 2,000 mm, HT22, LA8 FCS
- › Milling drum with milling width 2,000 mm, HT5, LA6x2 FCS
- › Milling drum with milling width 2,000 mm, HT22, LA15 FCS-Light

Loading of milled material

- › Hydraulically operated folding discharge conveyor, long

Machine and levelling control

- › LEVEL PRO automatic levelling system
- › Additional LEVEL PRO control panel
- › Slope sensor

Operator's platform

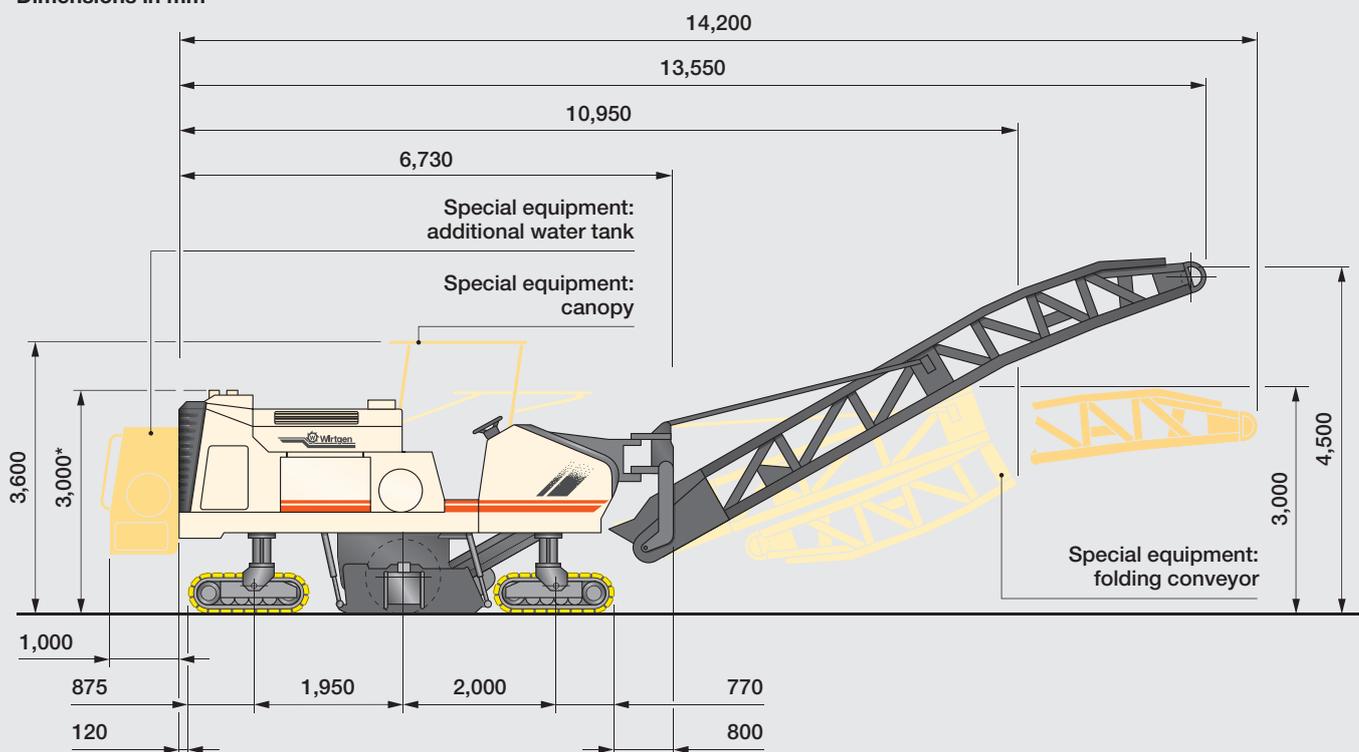
- › Canopy

Miscellaneous

- › Additional water tank 1,000 l
- › Hydraulically operated high-pressure water cleaner, 150 bar, 15 l/min

Technical specification W 1900

Dimensions in mm



* = Machine height with optional cyclonic air filter: 3,030 mm

Machine weights	
Empty weight of machine without filling media, without conveyor	25,400 kg
Operating weight, CE*	26,680 kg
Operating weight, max. (full tanks, full range of equipment)	31,900 kg
Weights of filling media	
Water tank filling in kg	16,000 kg
Diesel tank filling in kg (0.83 kg/l)	700 kg
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

* = Weight of machine with half-full water tank, half-full fuel tank, driver (75 kg) and tools.

Optional equipment features increasing/reducing empty weight

Optional milling drums in lieu of standard

FCS Light milling drum assembly, milling width 2,000 mm, milling depth 0–320 mm, number of cutting tools: 162

660 kg

Optional additional equipment

Canopy in lieu of standard

250 kg

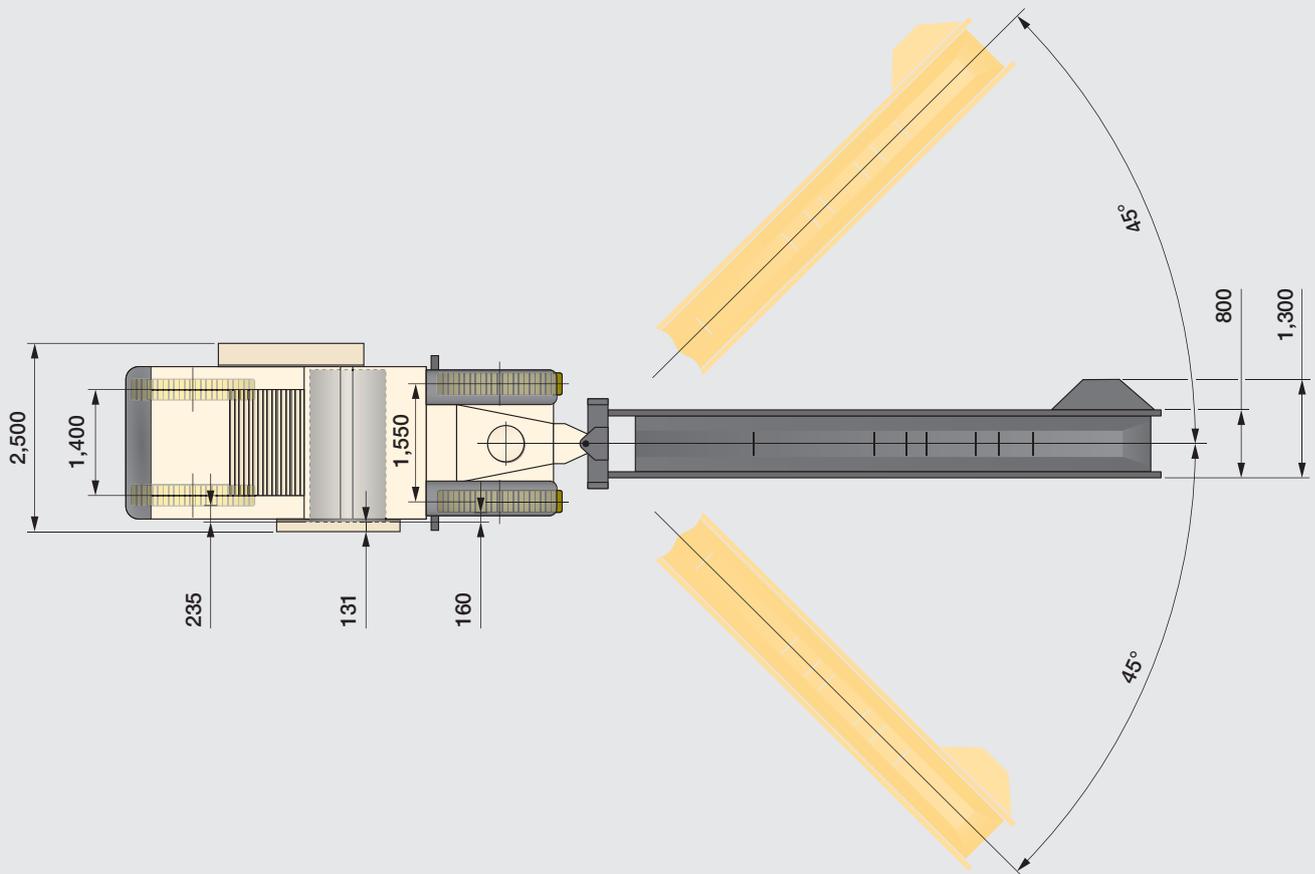
Folding conveyor in lieu of standard

360 kg

Additional water tank 1,000 l (unfilled)

820 kg

Dimensions in mm



* = Machine height with optional cyclonic air filter: 3,030 mm



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