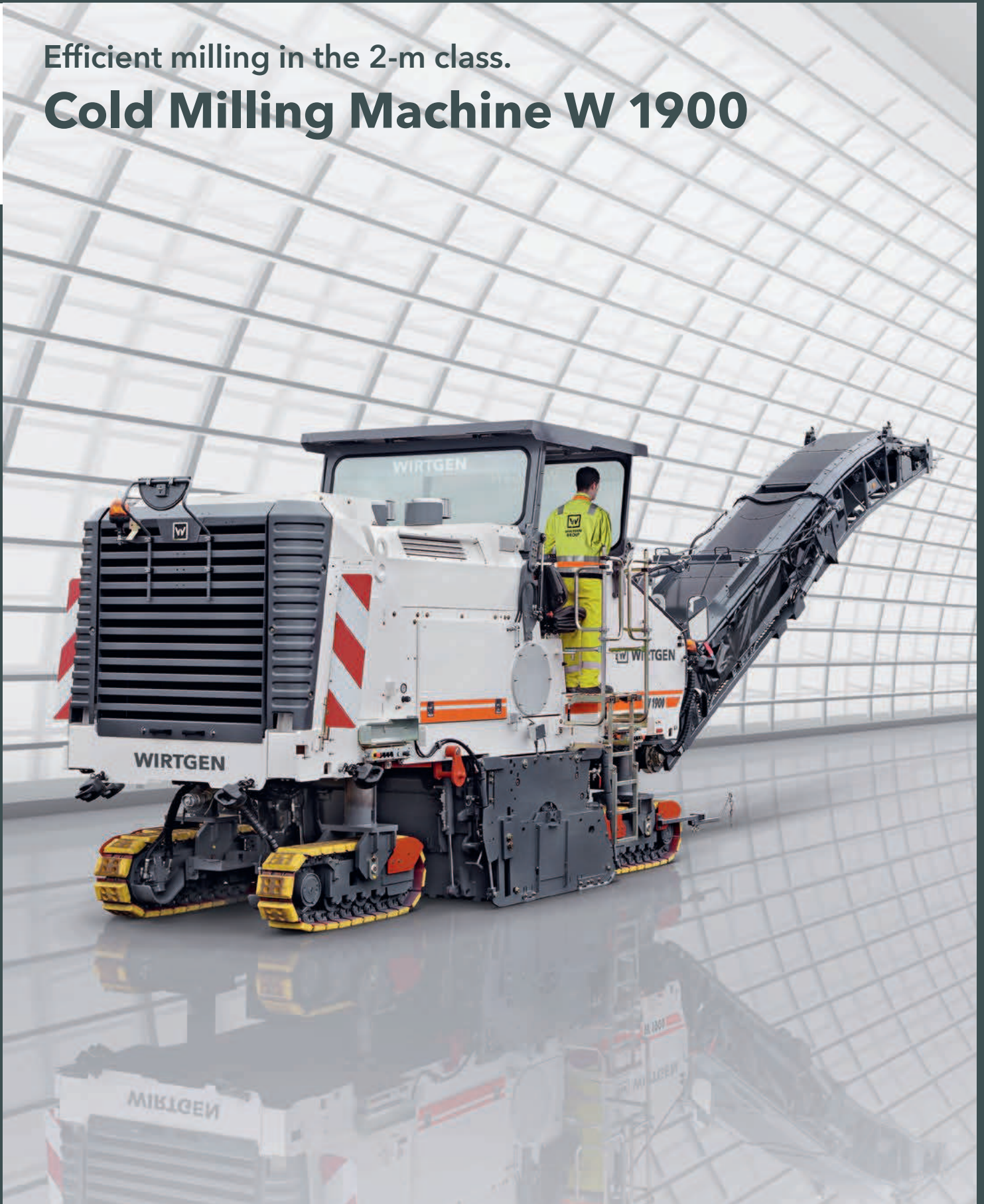




Efficient milling in the 2-m class.

Cold Milling Machine W 1900





Efficiency in the 2-metre class.



- > COMPACT 2-M MACHINE IN TRIED-AND-TESTED DESIGN FOR EFFICIENT MILLING OPERATIONS
- > PERFECT ERGONOMIC DESIGN AND EASE OF OPERATION FOR HIGH DAILY PERFORMANCE RATES
- > LIMITLESS APPLICATIONS RANGING FROM SURFACE COURSE REHABILITATION AND PAVEMENT REMOVAL AT FULL DEPTH ALL THE WAY TO FINE MILLING OPERATIONS
- > TREMENDOUS PERFORMANCE BOTH ON MAJOR CONSTRUCTION PROJECTS AND IN RESTRICTED SPACE CONDITIONS
- > COMPACT MACHINE DESIGN COMBINED WITH ACCEPTABLE TRANSPORT WEIGHT

Outstanding features of the W 1900 cold milling machine

04
05

3 |

MACHINE FRAME

- > **Perfect visibility**
Compact machine frame design for maximum manoeuvrability and a perfect view of the milling edge.
- > **Ergonomics**
Ergonomically designed, backlit controls for non-tiring, productive working.
- > **Ease of transport**
Ease of transport is ensured by low machine weight.
- > **Transport safety**
Numerous lashing lugs enable the machine to be securely lashed down on the flatbed truck.

2 |

ENGINE STATION

- > **Powerful diesel engine**
Powerful, fuel-efficient Mercedes engine for high production rates.
- > **Engine management**
Fully electronic engine management system for optimum torque stability.
- > **Soundproofing**
Highly effective soundproofing of the entire engine compartment for environmentally responsible operation.

2 |

1 |

LEVELLING SYSTEM

- > **Large choice of sensors**
LEVEL PRO automatic levelling system offering a large choice of sensors and highly precise milling depth control.
- > **Slope control sensor**
Slope control sensor for the milling of predefined pavement cross slopes.
- > **Multiplex-system**
The multiplex system analyses the readout of three sensors on each side of the machine to ensure maximum surface evenness.

7 |



4 |

OPERATOR'S PLATFORM

> Ample space on the operator's platform

Walk-through operator's platform for high operator comfort and performance.

> Canopy

Canopy with hydraulic fold-down feature for maximum weather protection.

> Operator comfort

Central control panel with controls arranged on the left and right; driver's seat can be moved to project over the edge of the machine on the right.

5 |

CONVEYOR SYSTEM

> Wide slewing angles

Conveyor slewing angles of 45° to either side optimize the loading process.

> Tremendous conveying capacity

High conveyor loading capacity and drive power for highly efficient material loading.

> Folding conveyor with locking mechanism

Folding conveyor with intelligent mechanical locking mechanism for easy transport.



6 |

MILLING DRUM UNIT

> FCS LIGHT

Optional FCS Light for the quick replacement of milling drums.

> HT22 quick-change toolholder system

Extra-efficient, tried-and-tested HT22 quick-change toolholder system as standard equipment.

> Powerful water spray system

Powerful water spray system for optimum tool cooling.

> Hydraulic replacement of cutting tools

Hydraulic cutting tool driver and extractor for quick tool replacement.

7 |

DRIVE SYSTEM

> All-track steering

Smooth hydraulic all-track steering system featuring large steering angles for maximum manoeuvrability.

> Traction control

Automatically engageable hydraulic traction control for milling regardless of ground conditions.

> Height-adjustable track units

Four separately hydraulically height-adjustable track units provide ample ground clearance.

> Continuously adjustable travel speed

Continuously adjustable travel speed in both milling and travel gear; automatically engaging maximum milling speed control.



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. LEVEL PRO, the automatic levelling system specially developed for milling operations, provides highly accurate milling results of superior quality.

The powerful W 1900 additionally impresses with hard-wearing design, simple repair and maintenance procedures and easily comprehensible handling.



The W 1900 clears construction sites easily thanks to its powerful conveyor system.



Tremendous milling performance comes as a standard feature

VERSATILITY PLUS HIGH PERFORMANCE

The W 1900 is capable of removing asphalt packages at milling depths of up to 320 mm easily in just a single machine pass. The compact large milling machine makes the most of its potential also when used for the removal of surface courses on a large scale. It achieves a tremendous daily production rate of up to 10,000 m² in the field when removing 40 mm thick asphalt layers.

Tremendous area performance levels can be achieved at low cost especially when performing fine milling operations on pavement surfaces. The W 1900 demonstrates maximum economic efficiency also, however, when operating in restricted space conditions as they are frequently encountered on urban construction sites. Another factor contributing to the machine's profitability is its wide range of applications enabling it to be utilized to full capacity at all times and on a wide variety of different milling jobs.



1 | Perfect milling results in the removal of thin pavement layers.

2 | Removing asphalt packages at depths of up to 320 mm.

3 | Powerful loading of the granulated material onto trucks.

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 can be safely accessed from both sides. These are all features to improve not only concentration on the work quality but productivity as well.

*Two operating
consoles with opti-
mized arrangement
of the controls.*



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

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





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.

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.



LEVEL PRO SCREEN

Automatic ON/OFF

Settings

Switchover button

Set value

Set value UP/DOWN

Actual value

Calibration

Controller output

Cylinder UP/DOWN

Memory 1

Memory 2



1 | Electronic slope sensor for the milling of pre-defined pavement cross slopes.

2 | Wire-ropes sensor for precise, automatic milling depth control.



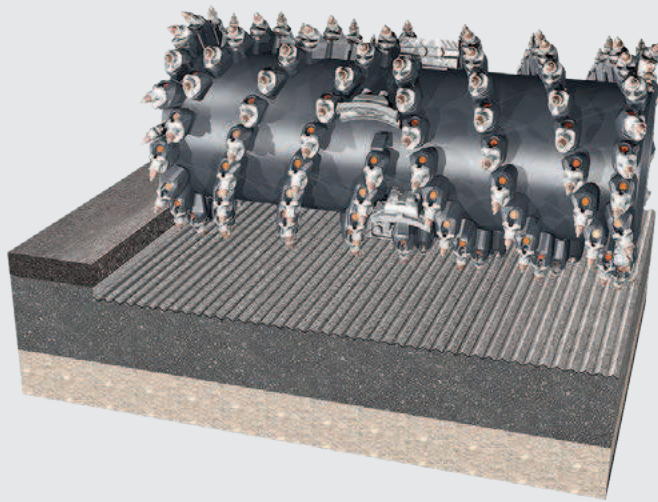
The lifting side plates reliably seal off the drum housing when in working position.

Versatile drum assembly

WIDE RANGE OF APPLICATIONS WITH FCS LIGHT

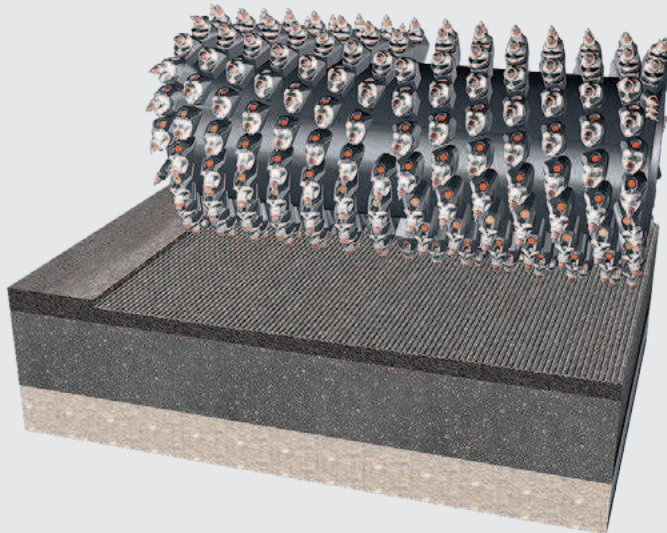
The W 1900 goes it alone on the construction site when equipped with FCS Light. The field-proven system offers a broad range of applications, for it enables milling drums of equal width but with different tool spacings to be changed quickly and easily. A wide variety of additional jobs in the surface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

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.



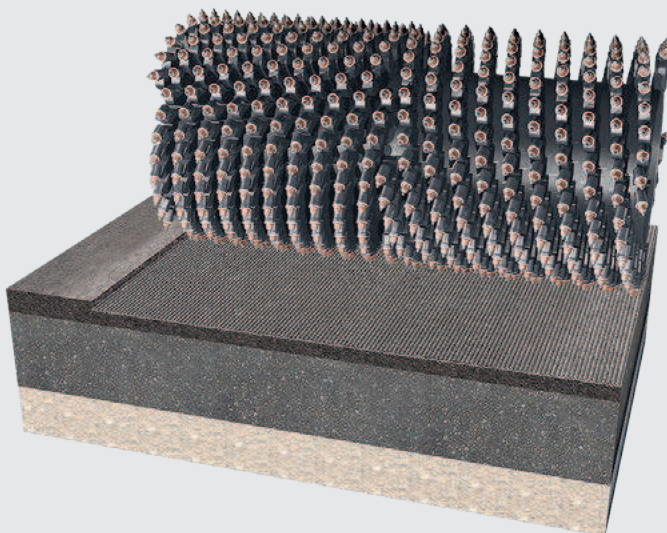
FCS milling drum

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

*The full range of
 FCS Light milling
 drums.*

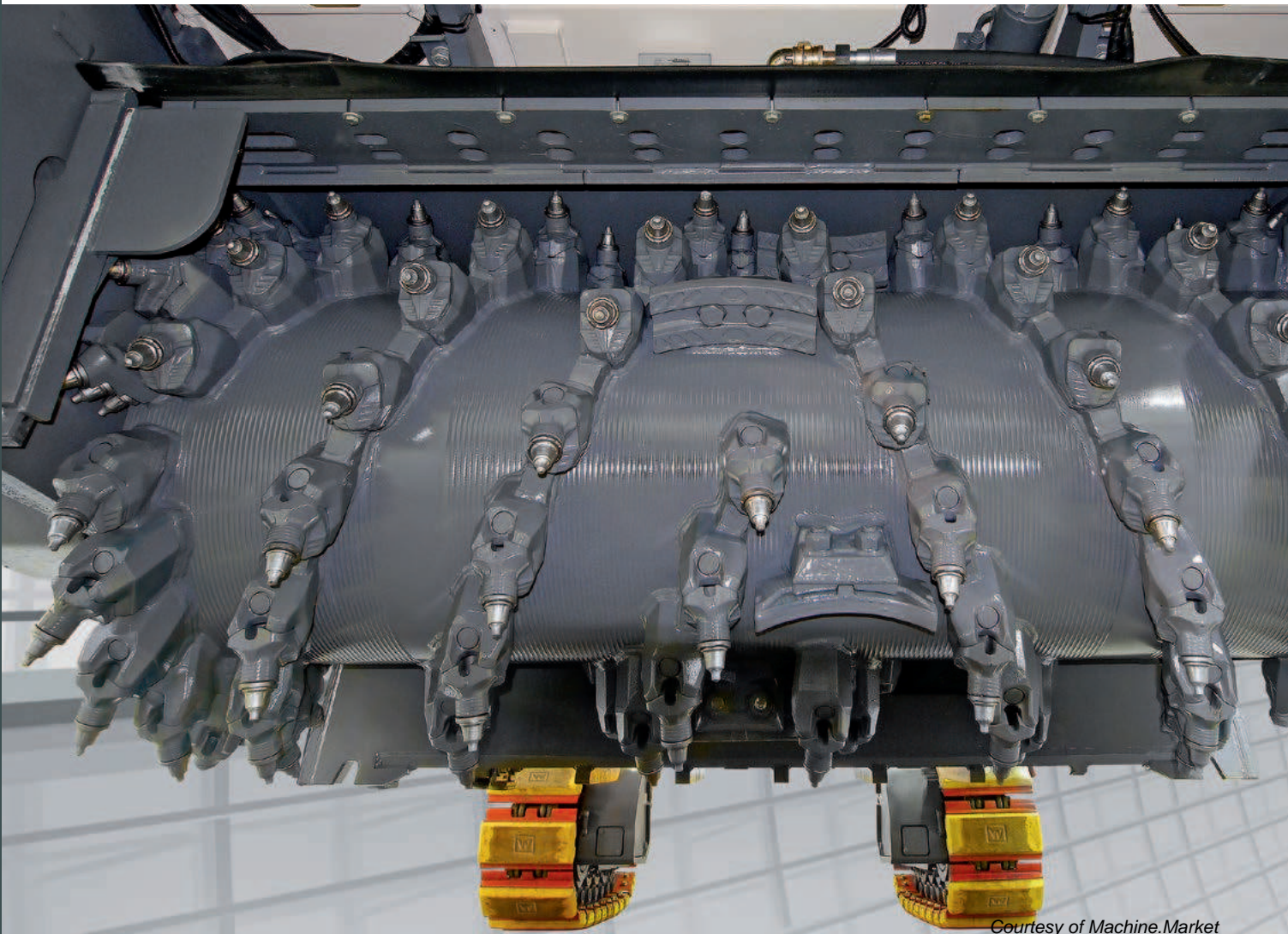
Milling economically with the HT22 quick-change toolholder system

HEAVY-DUTY TECHNOLOGY

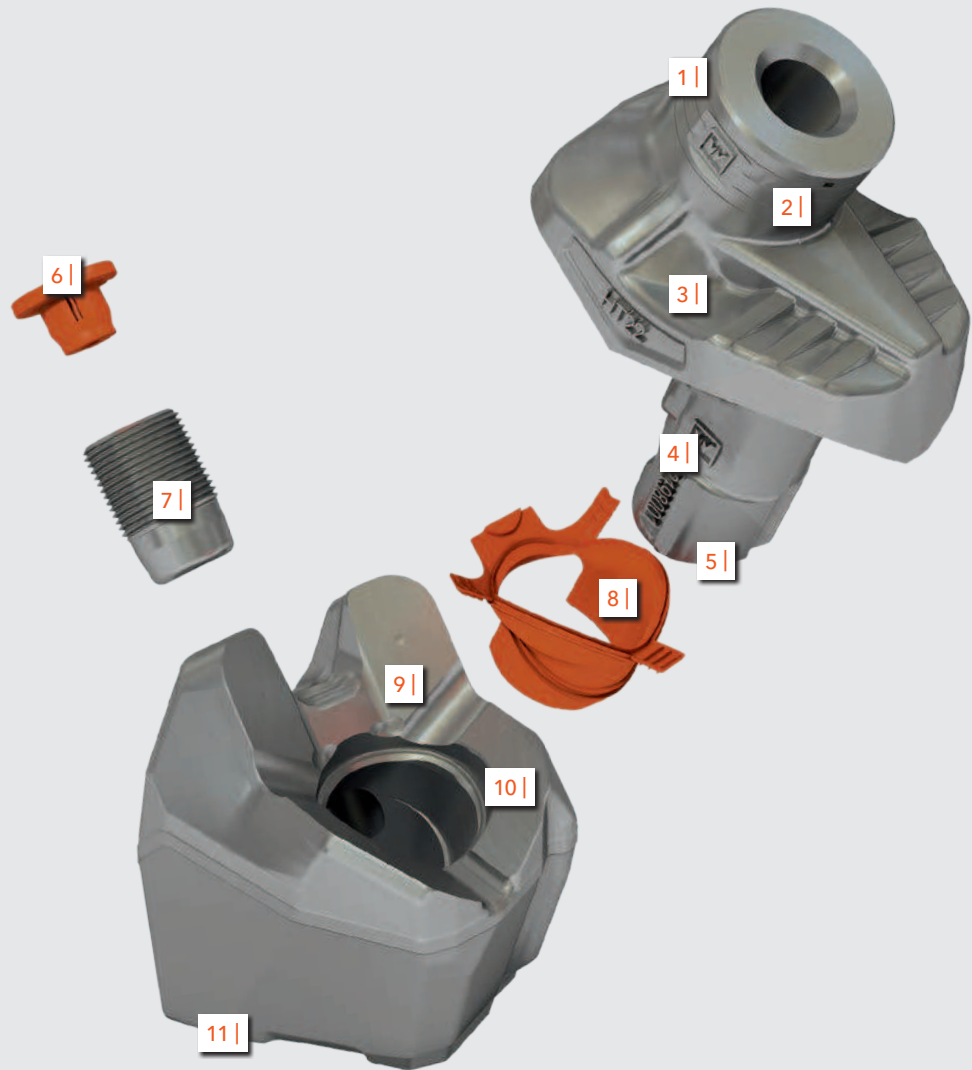
The patented HT22 quick-change toolholder system impresses with high wear resistance in day-to-day -operation on the job site, easy handling and additional tool cooling provided by an optimized toolholder design - to name just a few of its many advantages. It optimizes productivity and cuts operating 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.

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



The intelligent HT22 quick-change tool-holder system offers lots of application benefits.



HT22 QUICK-CHANGE TOOLHOLDER SYSTEM IN DETAIL

- 1 | Extremely large maximum wear distance
- 2 | Wear markers at 5 mm intervals
- 3 | High wear volume
- 4 | Optimized shank angle geometry for high component strength
- 5 | Large shank cross-section for significantly higher fracture strength
- 6 | Protective plug prevents soiling of bolt head
- 7 | Heavy-duty retaining bolt
- 8 | Seal between upper part and bottom part to allow simple insertion / removal of upper part
- 9 | Upper part covers bottom part completely for full protection of bottom part
- 10 | Extra large contact surface between upper part and bottom part for extended bottom part life
- 11 | Optimized welded connection offering increased strength and simultaneous flexibility for optimum tool rotation





The powerful conveyor system transports large quantities of milled material.

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.



1-2 | The machine has an exceptionally large slewing radius to the left and to the right.

3 | The folding conveyor reduces the machine's transport length.



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

Making swift headway even on sites where space is limited

THE AGILE W 1900 IS IN FULL CONTROL WHERE SPACE IS LIMITED

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

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.



Ease of maintenance



1 | Ample space for carrying out all maintenance work.

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

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.

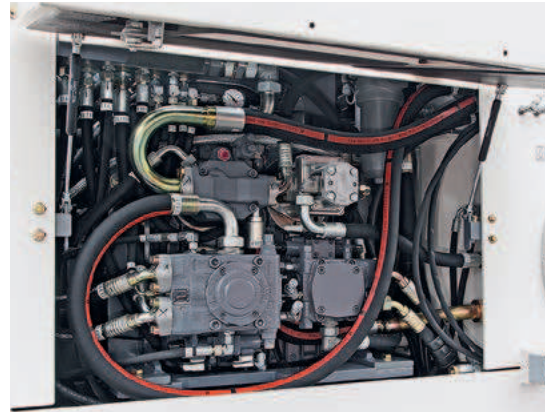
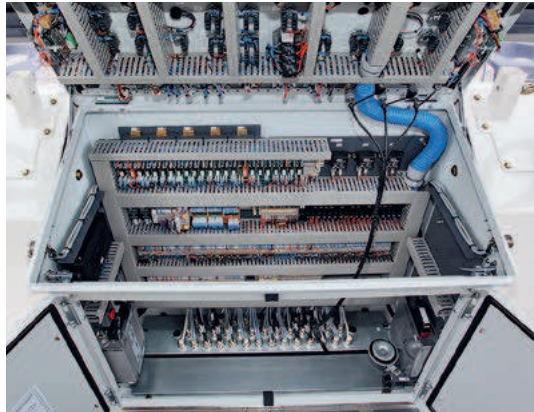
Wide-opening panels facilitate maintenance procedures.



High-quality components and production

22
23

Electrical cabinet and hydraulic components made in Germany.

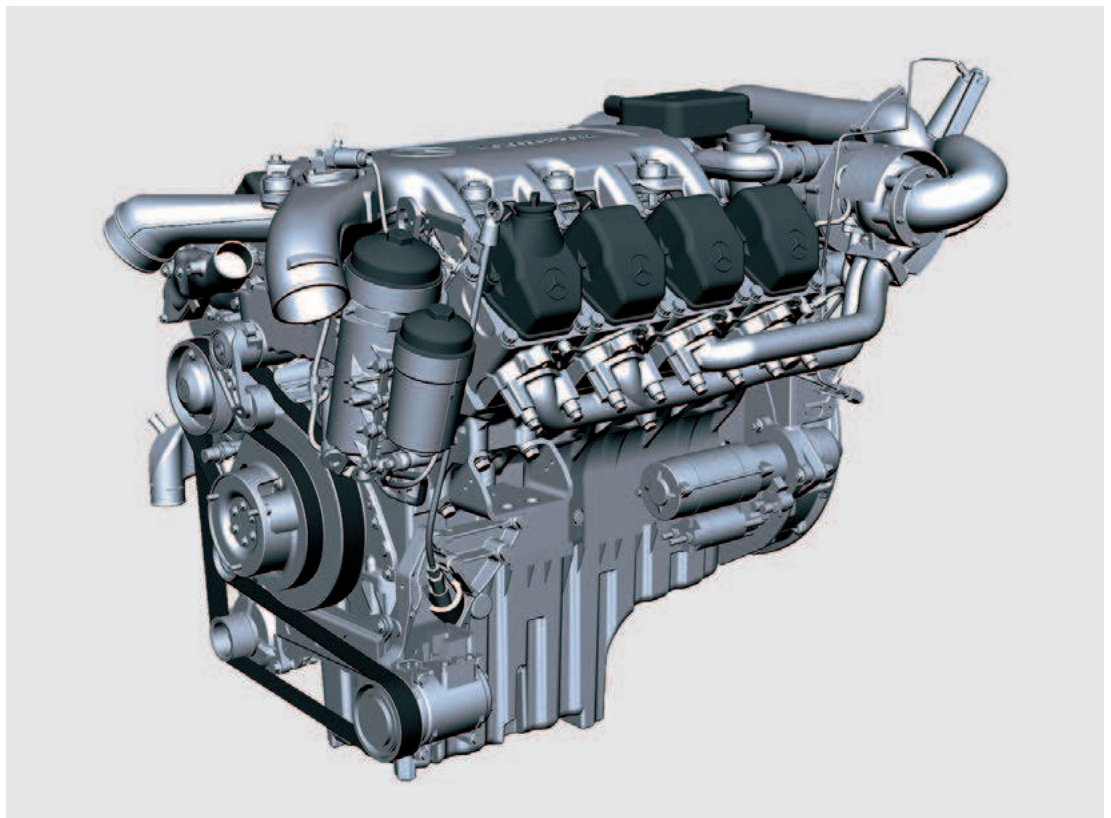


WE RELY ON QUALITY "MADE IN GERMANY"

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.





1 | Original spare parts from WIRTGEN can be supplied worldwide at extremely short notice.

2 | 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 manufac-

tured 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.

Engineering and design in the German main plant.



Technical specification

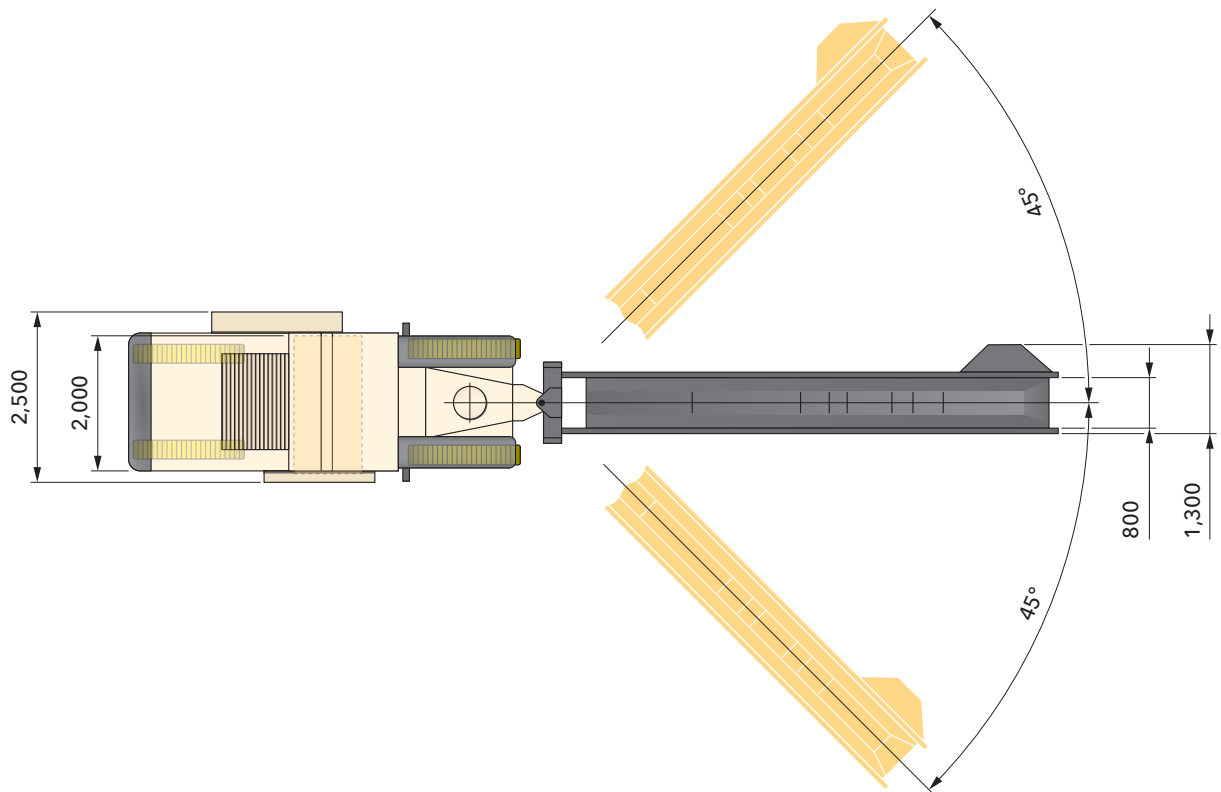
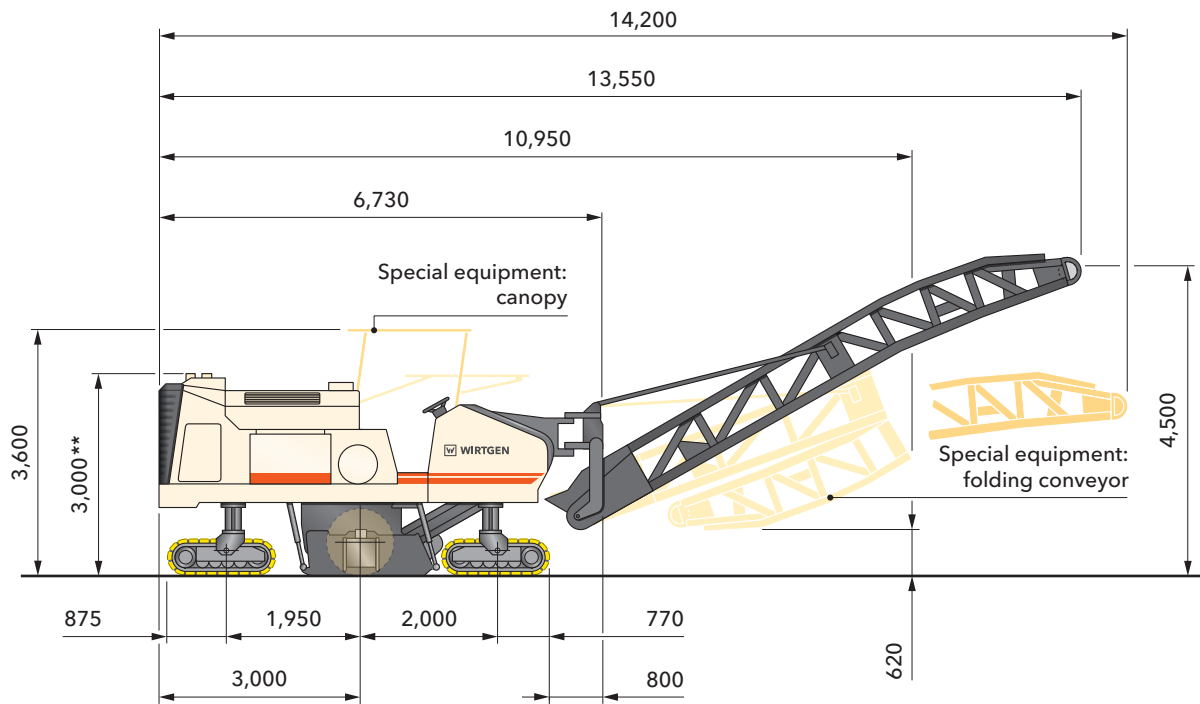
Milling drum	
Milling width	2,000 mm
Milling depth *1	0 to 320 mm
Drum diameter with tools	980 mm
Engine	
Manufacturer	Daimler Chrysler
Type	OM 502 LA
Cooling	water/air (intercooler)
Number of cylinders	8
Rated power at 2,000 min ⁻¹	340 kW/455 HP/462 PS
Maximum power at 1,800 min ⁻¹	350 kW/469 HP/476 PS
Displacement	15.9 l
Fuel consumption at rated power	84 l/h
Fuel consumption in field mix	34 l/h
Emission standards	EU Stage 3a/US Tier 3, CN Stage 3
Electrical system	
Electrical power supply	24 V
Tank capacities	
Fuel tank	850 l
Hydraulic oil tank	270 l
Water tank	1,600 l
Driving properties	
Travel speed in milling gear, max.	0 to 29.5 m/min
Travel speed in travel gear, max.	0 to 4.5 km/h
Track units	
Track units, front and rear (L x W x H)	1,600 x 260 x 550 mm
Loading of 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

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

Weight of base machine	
Empty weight of machine excluding tank contents	25,400 kg
Operating weight, CE* ²	26,680 kg
Maximum operating weight (full tanks, full range of equipment)	29,790 kg
Weights of tank contents	
Water tank filling	1,600 kg
Diesel tank filling (0,83 kg/l)	700 kg
Additional add-on weights	
Driver and tools	
Driver	75 kg
5 cutting tool containers	125 kg
On-board tools	30 kg
Optional milling drum assemblies in lieu of standard	
Milling drum housing FB2000 FCS-L	600 kg
Optional milling drums in lieu of standard	
Milling drum FB2000 HT22 LA18 with 146 picks	-250 kg
Milling drum FB2000 HT22 LA8 with 274 picks	600 kg
Milling drum FB2000 HT5 LA6x2 with 672 picks	500 kg
Milling drum FB2000 HT22 LA25 with 124 picks	-380 kg
Optional FCS milling drums in lieu of standard	
Milling drum FB2000 HT22 LA15 FCS with 162 picks	57 kg
Milling drum FB2000 HT22 LA18 FCS with 146 picks	-210 kg
Milling drum FB2000 HT22 LA8 FCS with 274 picks	650 kg
Milling drum FB2000 HT5 LA6X2 FCS with 672 picks	500 kg
Milling drum FB2000 HT22 LA25 FCS with 124 picks	-570 kg
Optional additional equipment	
Weather canopy in lieu of standard	250 kg
Discharge conveyor with hydraulic folding device in lieu of standard	360 kg

*² = Weight of machine, half-full water tank, half-full fuel tank, driver (75 kg), on-board tools, excluding optional equipment features.

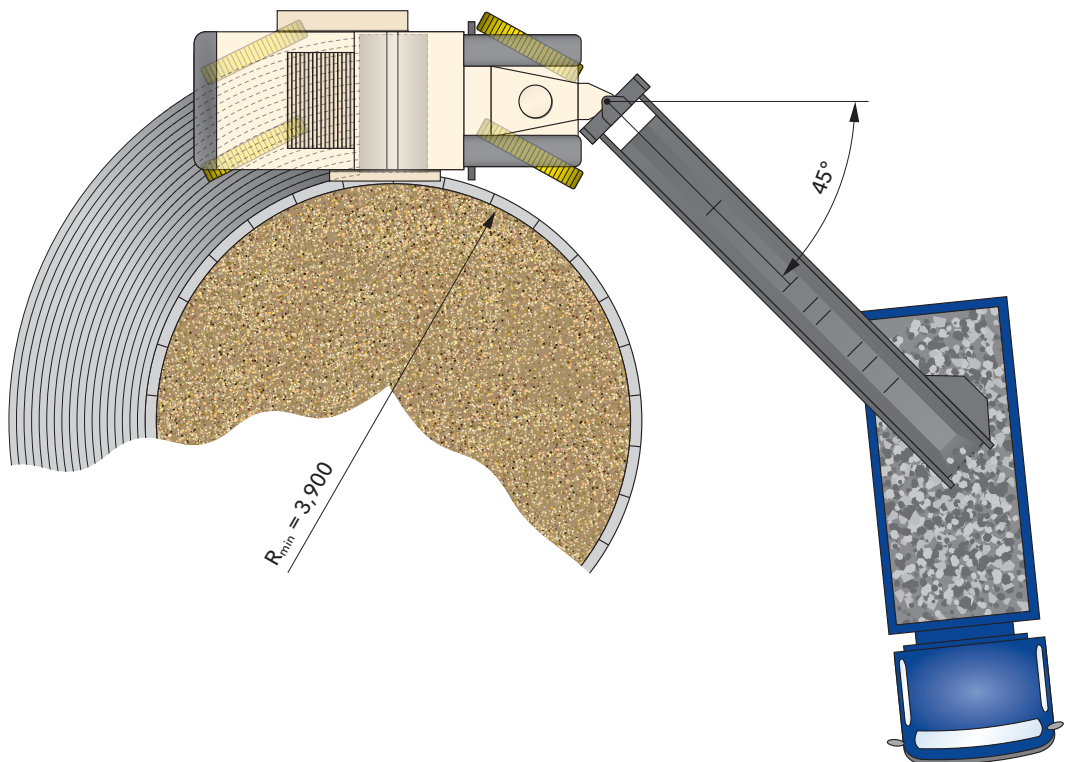
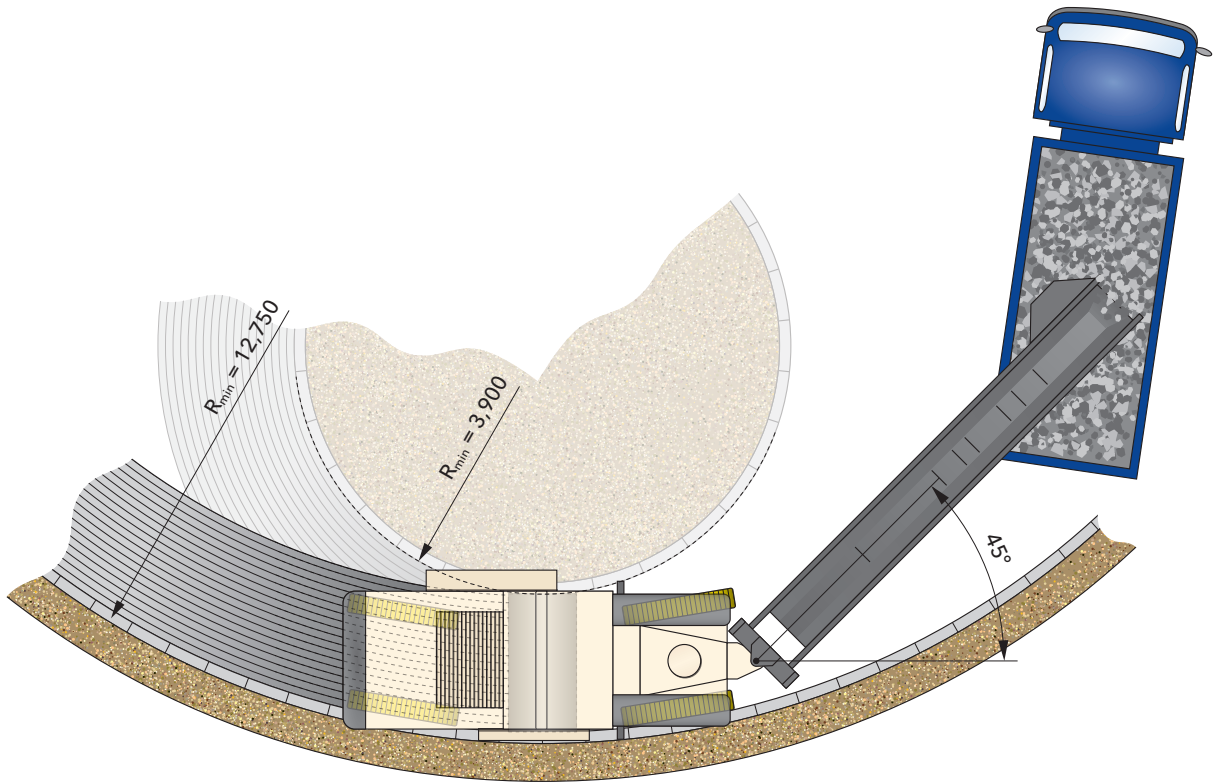
Dimensions



Dimensions in mm

* Based on operating weight, CE with conveyor folded out

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



Milling radius, milling depth 150 mm, Dimensions in mm

Standard equipment

28
29

Base machine	
Basic machine with engine	■
Radiator with temperature-dependent fan speed	■
Lockable engine cover with sound insulation package	■
Large storage compartments for pick buckets	■
Milling drum unit	
Wide-opening, electrohydraulically operated drum door/scraper plate combination, self-locking; the scraper plate is hydraulically operated and equipped with exchangeable carbide metal elements	■
Additional operating switches for lower scraper	■
Right side plate in hinged configuration	■
Hydraulically opening scraper plate with convenience locking	■
Exchangeable wearing segments on the side plate	■
Hydraulically lifting side plate	■
Ejector system with multiple application	■
Milling drum housing FB2000	□
Milling drums	
Milling drum FB2000 HT22 LA15 with 162 picks	□
Milled-out material loading	
Discharge conveyor slewing angle left and right 45 degrees	■
Conveyor belt system with controllable transport speed	■
Hydraulically lifting primary conveyor	■
Discharge conveyor, 8,500 mm long, 800 mm wide, with hydraulic folding device	□
Machine control and levelling system	
Shiftable hydraulic differential lock (flow distributor)	■
Max. milling speed control with automatic on/off function	■
Freely selectable steering function for the crawler unit tracks	■
Water injection in milling compartment with on/off function	■
Water sprinkling from primary conveyor with on/off function	■
Crawler unit position display without levelling	□

- = Standard equipment
- = Standard equipment, replaceable with optional equipment
- = Optional equipment

Operator's stand	
Centrally arranged operating panel with controls on the right and on the left. The operator's stand can be moved over the right-hand edge of the machine.	■
Covers for operating panels with lock	■
Footstep right and left with conveniently folding ladder	■
Exterior mirror	■
Under-carriage and height adjustment	
Equipped with wear-resistant polyurethane track pads	■
Infinitely variable, hydraulic four-track drive with hydraulic differential lock	■
Proportional valve technology in the height adjustment	■
Others	
Light package with 5 headlights	■
Large tool package	■
Total of 5 EMERGENCY STOP switches at sensible positions on the machine	■
Standard water filling, front (without filling pump)	■
Standard rear cover	▣
Water tank filling front	▣
Paint standard cream white RAL 9001	▣
Lighting package with 11 halogen-floodlights	▣
Storage compartment on chain crawler units rear for pick bucket	▣

■ = Standard equipment
 ▣ = Standard equipment, replaceable with optional equipment
 □ = Optional equipment

Optional equipment

Milling drum unit	
Milling drum housing FB2000 FCS-L	<input type="checkbox"/>
Milling drums	
Milling drum FB2000 HT22 LA15 FCS with 162 picks	<input type="checkbox"/>
Milling drum FB2000 HT22 LA18 with 146 picks	<input type="checkbox"/>
Milling drum FB2000 HT22 LA18 FCS with 146 picks	<input type="checkbox"/>
Milling drum FB2000 HT22 LA8 FCS with 274 picks	<input type="checkbox"/>
Milling drum FB2000 HT5 LA6X2 FCS with 672 picks	<input type="checkbox"/>
Milling drum FB2000 HT22 LA8 with 274 picks	<input type="checkbox"/>
Milling drum FB2000 HT5 LA6x2 with 672 picks	<input type="checkbox"/>
Milling drum FB2000 HT22 LA25 with 124 picks	<input type="checkbox"/>
Milling drum FB2000 HT22 LA25 FCS with 124 picks	<input type="checkbox"/>
Milled-out material loading	
Discharge conveyor, 8,500 mm long, 800 mm wide	<input type="checkbox"/>
Machine control and levelling system	
Level Pro levelling system wire-rope right + left	<input type="checkbox"/>
Operating display LEVEL PRO additionally	<input type="checkbox"/>
Slope control sensor	<input type="checkbox"/>

- = Standard equipment
- = Standard equipment, replaceable with optional equipment
- = Optional equipment

Operator's stand	
Weather canopy folds in hydraulically	<input type="checkbox"/>
Weather canopy folds in electrohydraulically	<input type="checkbox"/>
Others	
High-pressure water cleaner with water filling front	<input type="checkbox"/>
Paint in one special colour (RAL)	<input type="checkbox"/>
Folding seats for pick change with storage compartment	<input type="checkbox"/>
Assembly trolley	<input type="checkbox"/>
Pneumatic hammer with pick ejector/insertor	<input type="checkbox"/>
Milling drum rotation device	<input type="checkbox"/>

- = Standard equipment
- = Standard equipment, replaceable with optional equipment
- = Optional equipment



WIRTGEN GmbH
Reinhard-Wirtgen-Str. 2 · 53578 Windhagen · Germany
Phone: +49 (0)26 45/131-0 · Fax: +49 (0)26 45/131-392
Internet: www.wirtgen.com · E-Mail: info@wirtgen.com

