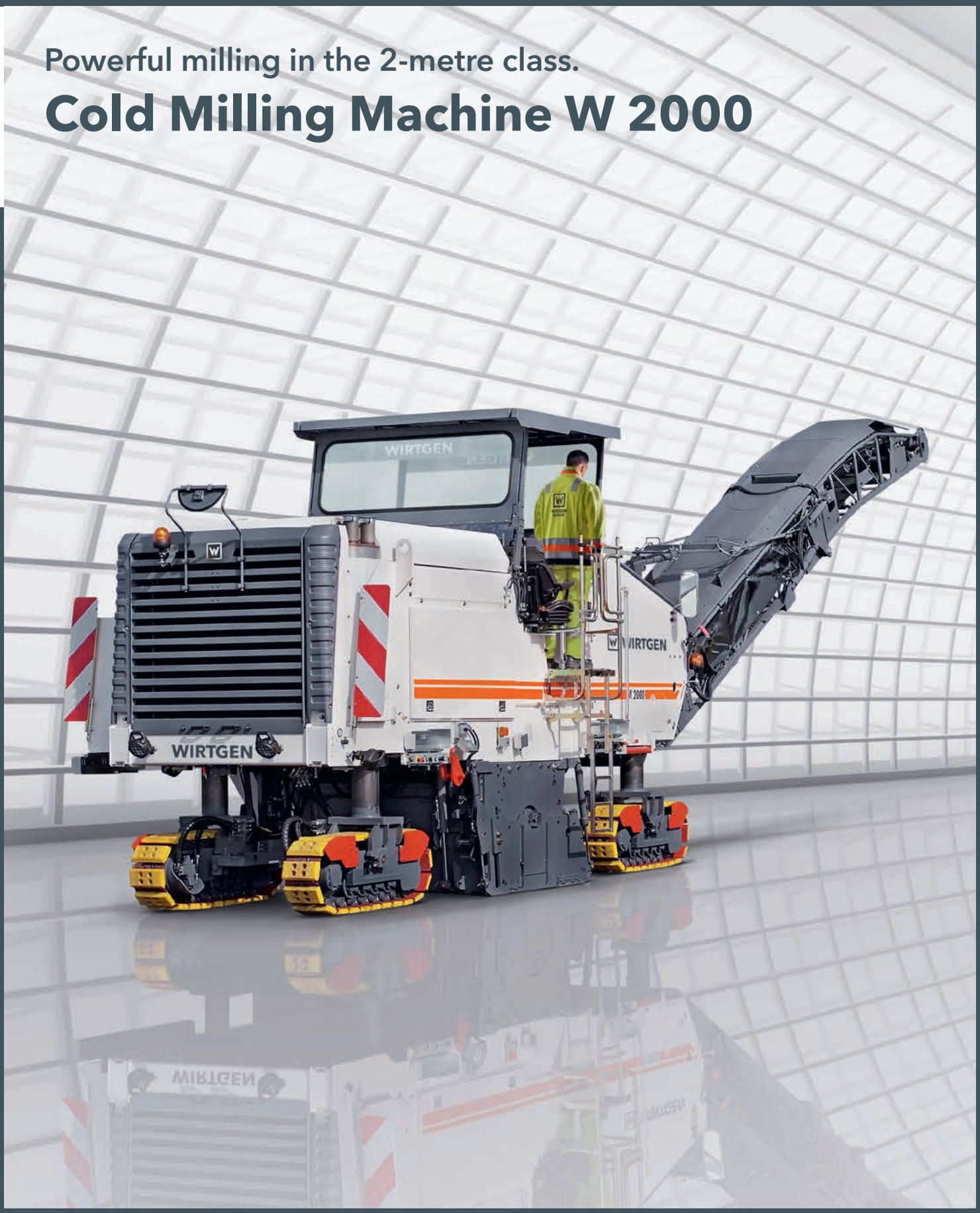
A WIRTGEN GROUP COMPANY

WIRTGEN

Powerful milling in the 2-metre class.

# Cold Milling Machine W 2000



# High productivity regardless of the job to be performed.

- HIGH MILLING POWER FOR HIGH PRODUCTIVITY
- EFFICIENT COMPLETION OF THE ENTIRE SPECTRUM OF MILLING JOBS
- PARTICULARLY SUITABLE FOR THE REMOVAL OF PAVEMENTS ON A LARGE SCALE
- ERGONOMIC DESIGN, OPERATOR COMFORT AND INTUITIVE OPERATION FOR HIGH MILLING EFFICIENCY
- FRONT-LOADING CONVEYOR OFFERING HIGH LOADING CAPACITY AND NUMEROUS ADJUSTMENT OPTIONS

# Outstanding features of the W 2000 cold milling machine

## 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.

> **Transport safety**
Numerous lashing lugs enable the machine to be securely lashed down on the flatbed truck.

## 2 | ENGINE STATION

> **High-powered diesel engine**
High-powered diesel engine featuring high torque and low diesel consumption for high productivity.

> **Engine management**
Fully electronic engine management system for optimum torque stability.

> **Soundproofing**
Highly effective soundproofing of the entire engine compartment for environmentally responsible operation.

## 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.

## 4 | OPERATOR'S PLATFORM

> **Anti-vibration mounted operator's platform**
Walk-through, anti-vibration mounted operator's platform for high operator comfort and performance.

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

> **Operator comfort**
The two identical, individually adjustable control panels and two driver's seats can be moved to project over the edges of the machine on the left and 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.

*The W 2000 front loader proves to be a master of its craft on all kinds of milling sites.*

# The W 2000 – a versatile top performer

**ITS VERSATILITY MAKES THIS LARGE MILLING MACHINE SO EFFICIENT**

For professional contractors requiring a versatile road milling machine with high performance reserves, the tried and tested W 2000 paves the way to an all-round success. This multi-purpose machine in the range of WIRTGEN large milling machines of the 2-m class achieves excellent results in particular in the removal of pavement surfaces on a large scale – the state-of-the-art, robust diesel engine provides sufficient power regardless of the job at hand.

The LEVEL PRO automatic levelling system guarantees accurate, high-quality milling results. In addition, the innovative FCS Light ensures that even micro-fine milling jobs are completed to the highest quality standards. At the end of the day, it is the wide range of applications that makes the compact W 2000 such an economically efficient machine.

*Reliable machine technology and a new, appealing design.*

# Compact 2-m milling machine with high performance reserves

**AT HOME ON CONSTRUCTION SITES BIG AND SMALL**

Its milling width of 2 m and high engine power enable the W 2000 to mill large areas economically at maximum milling depths of up to 320 mm. The unrivalled milling depth allows the removal of complete pavements in a single pass. Our large milling machine stands up to any comparison – regardless of whether the job demands the milling of individual pavement layers or the removal of entire road pavements. However its high milling performance and compact design also ensure swift job completion on small or medium-sized milling sites, such as the rehabilitation of an inner-city road pavement.

Moreover the W 2000 is eminently suitable for the low-cost rehabilitation of road surfaces by fine milling.

1 |

2 |

1 – 2 | *The W 2000 large milling machine efficiently removes complete road pavements as well as individual pavement layers.*

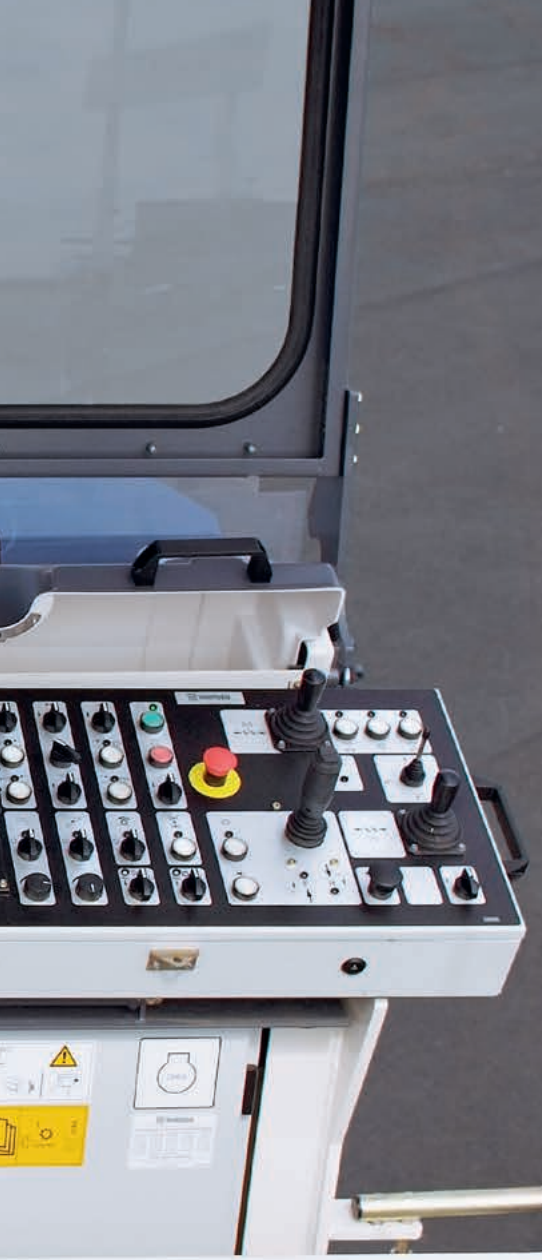
*Both control panels can be moved out over the edge of the machine.*

# Effortless control of the milling process

**MASTERING OPERATION OF THE W 2000 QUICKLY**

Easy handling of the W 2000 enables highly productive work right from the start. Clearly arranged controls allow the large milling machine to be operated intuitively while the unambiguous symbols provide clarity and safety. In addition, the proprietary WIDIS 32 on-board information and diagnostic system developed by WIRTGEN displays all parameters pertaining to the machine, engine and hydraulic system.

Ergonomic standards play an important role, too: antivibration mounted treads on the walk-through operator's platform add to the high degree of operator comfort. Last but not least, the control panels and driver's seats can be adjusted individually to allow efficient working in both standing and seated position.



1 | *The hydraulically retractable canopy is folded down into transport position at the mere flick of a switch.*

2 | *The control panel has been designed with functionality in mind and is adjustable in height and tilt.*

3 | *Move control panel plus canopy outwards – while retaining a perfect view of the milling edge.*

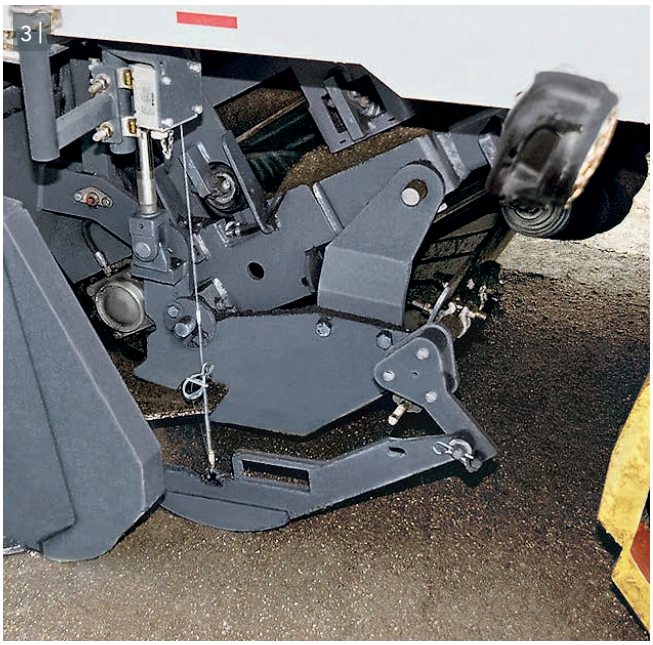
# LEVEL PRO guarantees top-class milling results

**MAXIMUM EASE OF LEVELLING**

WIRTGEN has developed a highly accurate, proprietary levelling system including a software that has been designed specifically for cold milling machines: LEVEL PRO. The overall system includes an operating panel, a controller unit and several sensors. The graphics-enabled LEVEL PRO screen shows key parameters in a clearly legible fashion.

For example, target and actual values for the left and right milling depth and slope parameters are clearly and unambiguously shown on the displays. In addition, the memory feature is very useful to program, store and invoke target values.

A great variety of sensors can be integrated into the automatic levelling system as and when required, such as wire-rope, slope and ultrasonic sensors. The optional multiplex system can be used to perfectly compensate irregularities in longitudinal direction.



1 | *The optional electronic slope sensor for milling pre-set cross slopes.*

2 | *Wire-rope sensors attached to the side plates accurately measure the milling depth on both sides.*

3 | *Scanning the surface in front of the milling drum using a wire-rope sensor (optional).*

4 | *The clearly arranged operating panel makes levelling easier*

**LEVEL PRO SCREEN**

*The scraper blade can be swung open hydraulically for cutting tool replacement.*

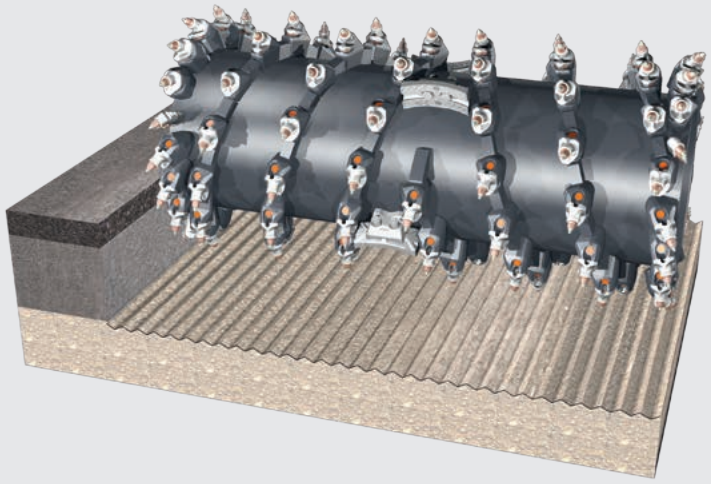
# Wide range of applications ensures efficiency

**ADDS EVEN MORE VERSATILITY: THE 2.20 M HOUSING**

Versatility is what makes a cold milling machine economical! The Flexible Cutter System Light (FCS Light) enables the W 2000 to be equipped with milling drums of various tool spacings. From deep milling using the eco cutter or standard milling drum to fine milling or micro-fine milling – the W 2000 completes a wide range of demanding jobs all on its own.

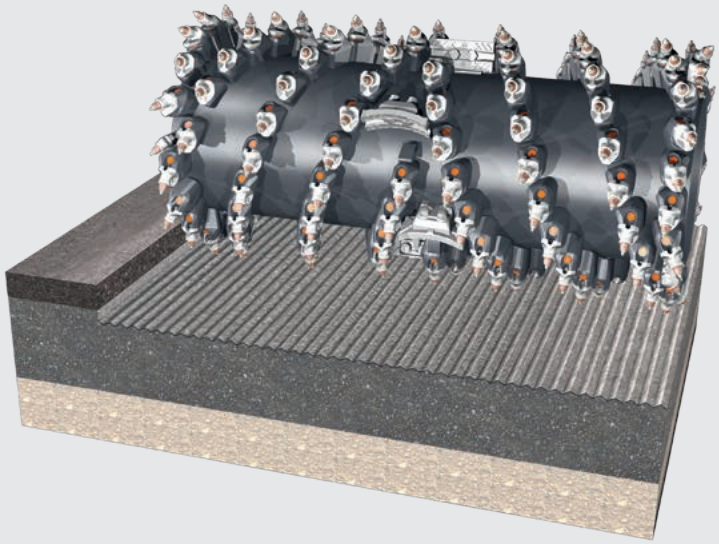
It goes without saying that both side plates are hydraulically adjustable in height. The same applies to the scraper blade: it can be hydraulically adjusted in height in order to load all or part of the milled material, or to leave it completely behind in the milled track.

*Range of milling drums for the W 2000 with a working width of 2 m.*



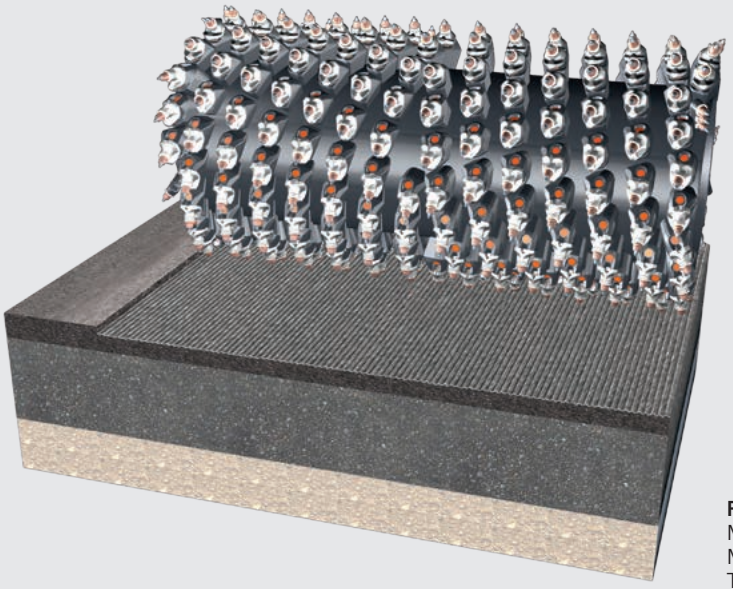
**ECO cutter**

| | |
|---|---|
| Milling width: | 2,000 mm |
| Milling depth: | 0 – 320 mm |
| Tool spacing: | 25 mm |



**Standard milling drum**

| | |
|---|---|
| Milling width: | 2,000 mm |
| Milling depth: | 0 – 320 mm |
| Tool spacing: | 18 mm |



**Fine milling drum**

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

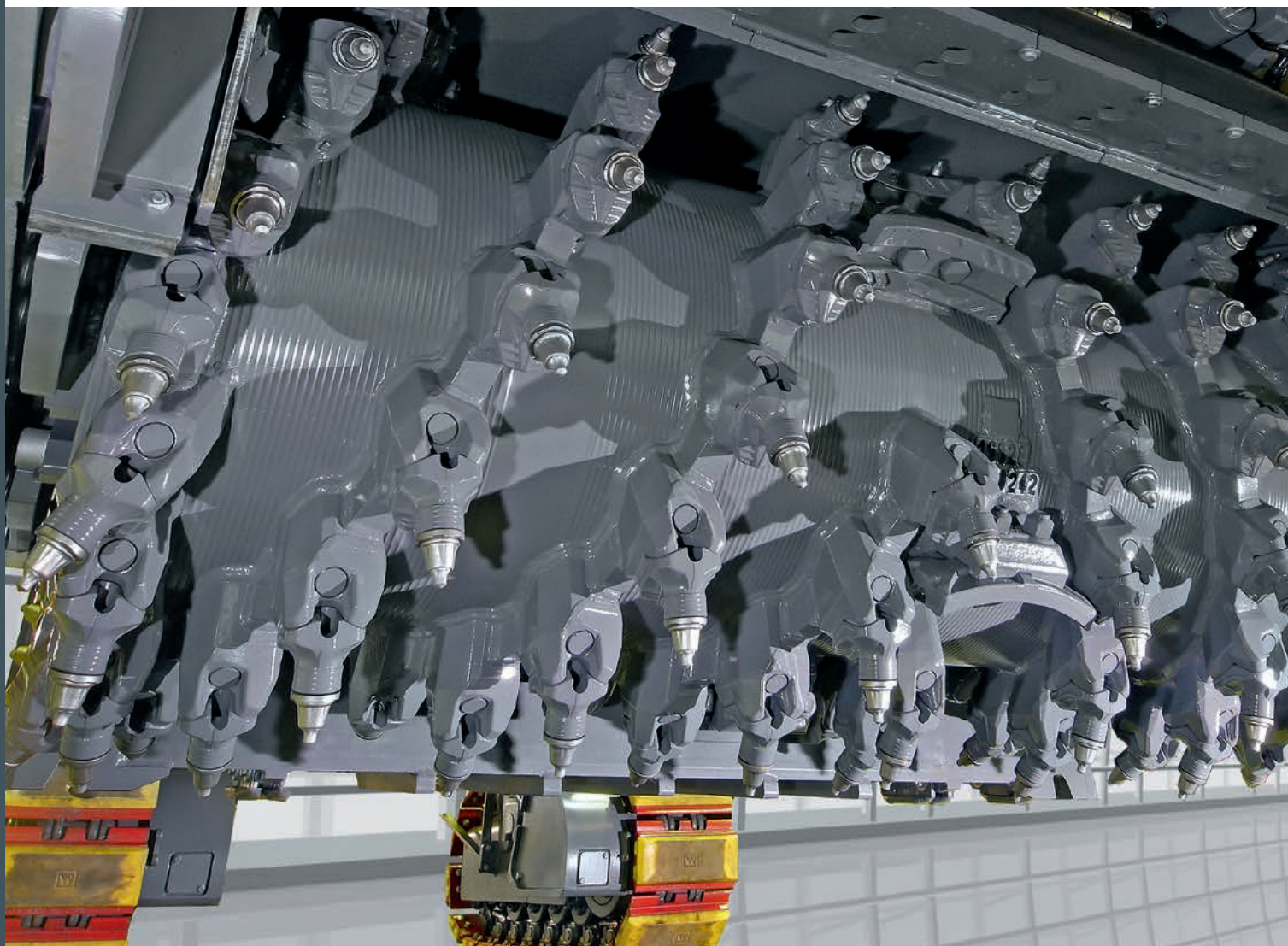
# HT22 makes operation of the W 2000 even more economical

**LONG SERVICE LIFE IN EVEN THE TOUGHEST JOBS**

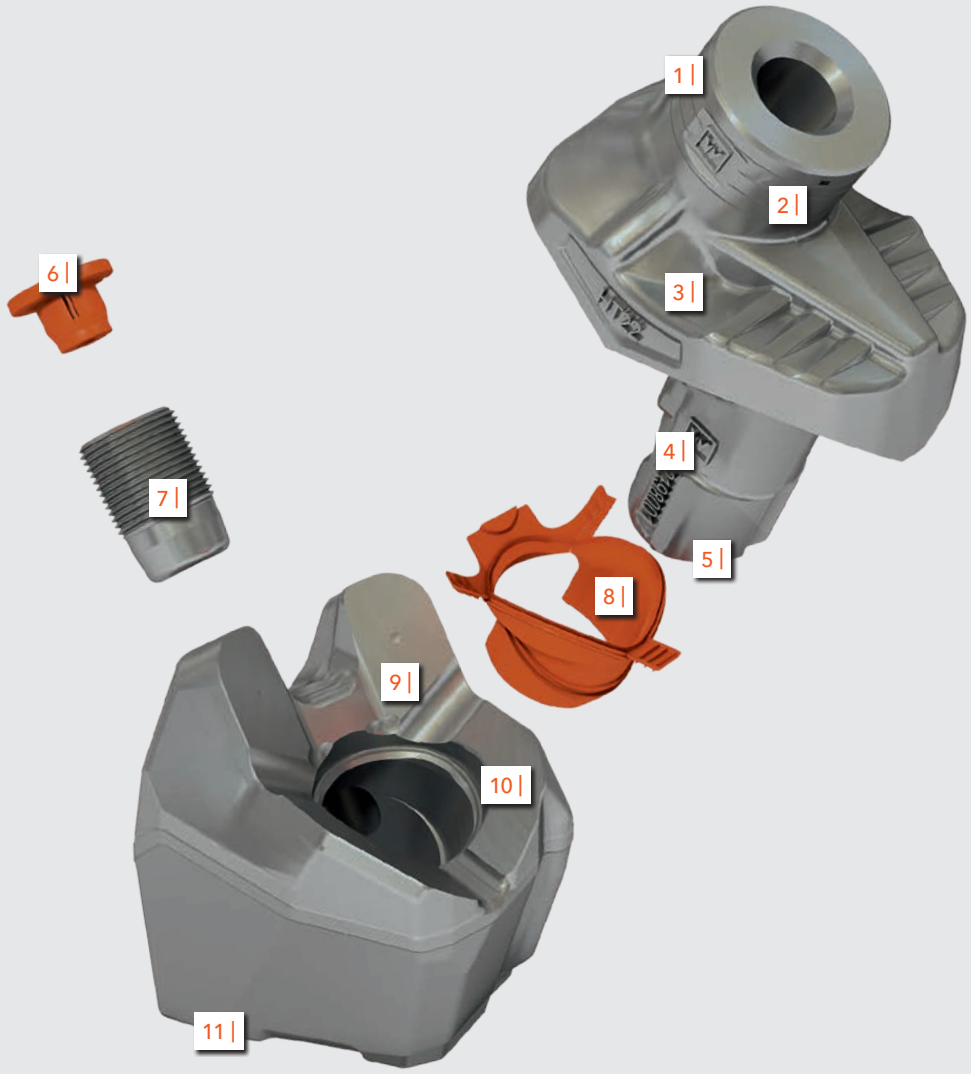
Toolholders are subject to a high degree of stress and strain. Our patented HT22 quick-change toolholder system has been designed for demanding everyday use on the construction site, extending uptimes and significantly cutting operating costs. Clear marks in favour of the HT22 system are the use of particularly wear-resistant materials, additional tool cooling enabled by an optimized toolholder design, as well as ease of use and maintenance.

The integrated water spray system provides highly effective cooling of the cutting tools, thus extending their service life. Additional features, such as the hydraulically opening scraper blade, dual seats at the rear crawler track units and a pneumatic cutting tool extractor, ensure quick and easy replacement of cutting tools.

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



*HT22 quick-change toolholder system: tools for the pros.*




## 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 conveyor in folding design simplifies transport.*

# Flexible, high-performance loading of milled material

**THE CONVEYOR KEEPS UP WITH ANY MILLING SPEED**

Fast, efficient transport of the milled material off the job site makes a significant contribution to ensure a smooth progress of the milling operation. The loading system of the W 2000 effortlessly copes with transport requirements even when fully utilizing its enormous milling capacity: the conveyor's wide slewing angles enable one truck to wait on the side while another, driving alongside the machine, is still being loaded.

The great discharge height and variable belt speed enable large trucks to be loaded to full capacity. The operator's platform provides a good view of the discharge conveyor and the truck driving in front.

1 – 2 | *Effectively closed transfer zone from primary to discharge conveyor.*

3 | *The discharge conveyor can be raised hydraulically.*

*Crab steering enables the machine to precisely approach existing cuts.*

# Optimum traction regardless of the working situation

## TREMENDOUS MANOEUVRABILITY

Whether manoeuvring on difficult ground, turning in one go, easy loading or approaching existing cuts in crab steering mode: the excellent driving properties of the W 2000 result in a lucrative time-saving potential. This favourable behaviour is ensured primarily by the smooth, hydraulic all-track steering system with manually selectable, hydraulic flow divider that acts as a differential lock and guarantees uniform traction in particular in adverse conditions.

*Working independently of the level selected, the parallel sliding block guide ensures precise steering.*

They individually height-adjustable crawler track units with their high articulation provide ample ground clearance. In addition, all four track units provide large steering angles, which allow the compact W 2000 to perform an amazingly small turning circle.

# Intelligent maintenance pays off

1 | *Ample space for maintenance provided by the wide-open engine cowling.*

2 | *All filters are within easy reach and can be replaced effortlessly.*

## DOING A QUICK CHECK OF THE W 2000

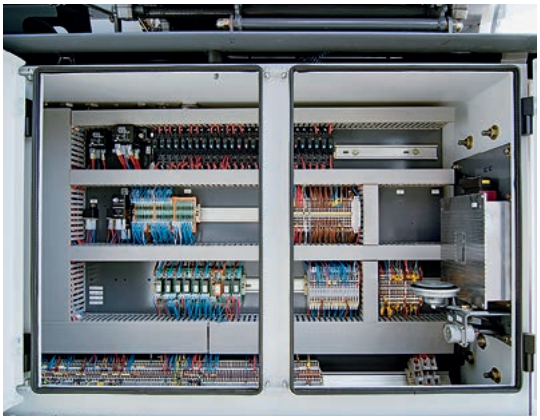
Even though the W 2000 has been designed for long working days, a minimum amount of checking and maintenance needs to be done. This is not a big deal at all, however, as all important components are readily accessible without using tools. The wide-opening service panels provide full access to carry out all necessary maintenance and servicing procedures.

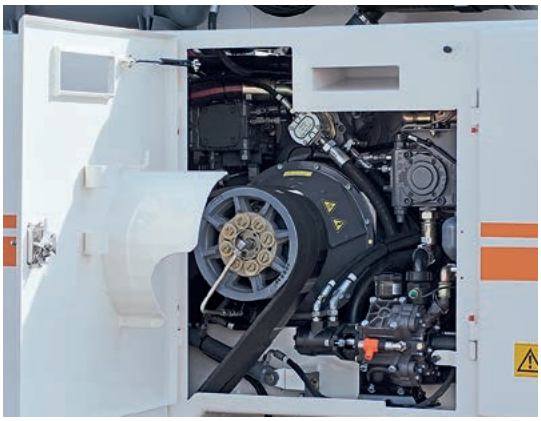
In addition, lubrication and service points have been grouped together intelligently in just a few places of the machine, and visual inspections are performed quickly from the operator's platform or from the ground. Ample storage space is available for tools, wearing parts or cutting tools. The overall operational availability of the W 2000 is increased significantly on account of this intelligent maintenance concept.

*Wide-opening panels facilitate maintenance procedures.*

# High-tech components and state-of-the-art production for top quality

*"Made in Germany" – electrical cabinet and hydraulic system.*



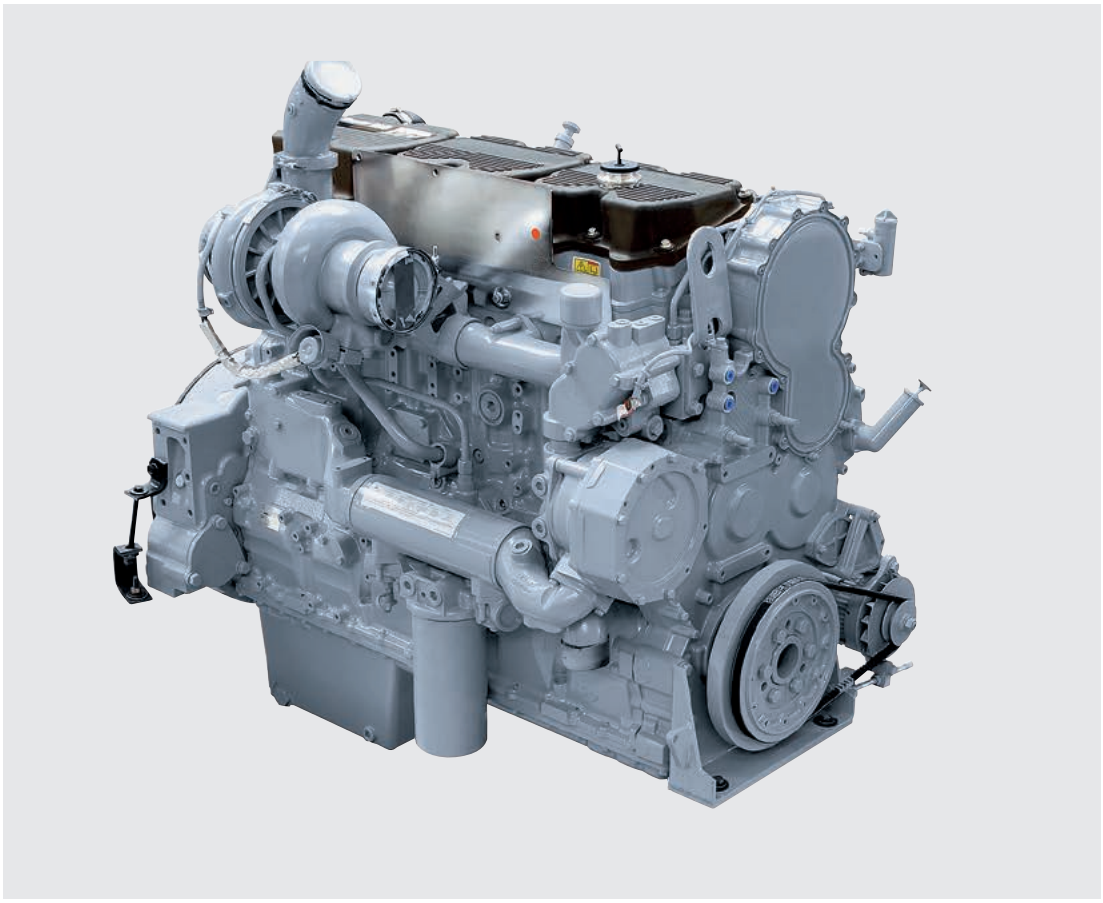


**COMPONENTS FROM MANUFACTURERS OF GOOD REPUTATION**

Over a thousand tried-and-tested W 2000 large milling machines have left the WIRTGEN plant to date and have demonstrated their skills on countless job sites around the globe. This wealth of experience is continuously utilized to the benefit of the machine. In the process of selecting components for the W 2000, we additionally consider only those suppliers who meet the highest quality criteria in terms of the durability, failure safety and strength of their products.

A prime example of this is the state-of-the-art, economical diesel engine. The fully electronic machine control system ensures that it always works in the optimal performance and torque ranges. This minimizes fuel consumption and directly results in low operating cost.

*The heavy-duty diesel engine offers an ideal combination of power, torque and fuel consumption.*



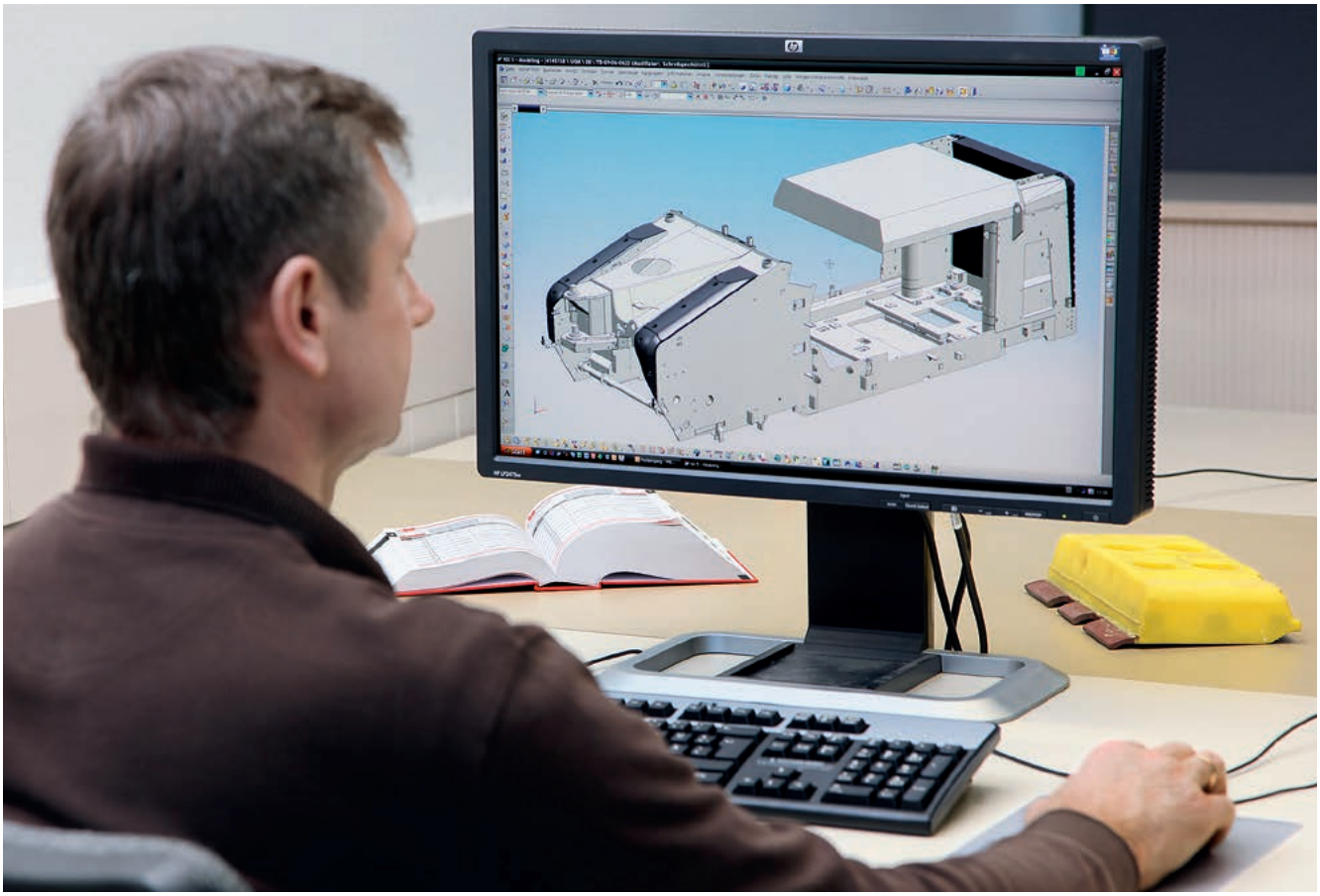
## HIGH QUALITY, WORLDWIDE CUSTOMER SERVICE

Highly qualified German engineers and technicians are in charge of the engineering and design of the W 2000 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 site quickly, no matter how remote the job site is. The high-quality original spare parts from WIRTGEN can also be supplied worldwide and on short notice.

*Final assembly is performed by skilled expert staff.*

*Engineering and design in the German main plant.*



# Technical specification

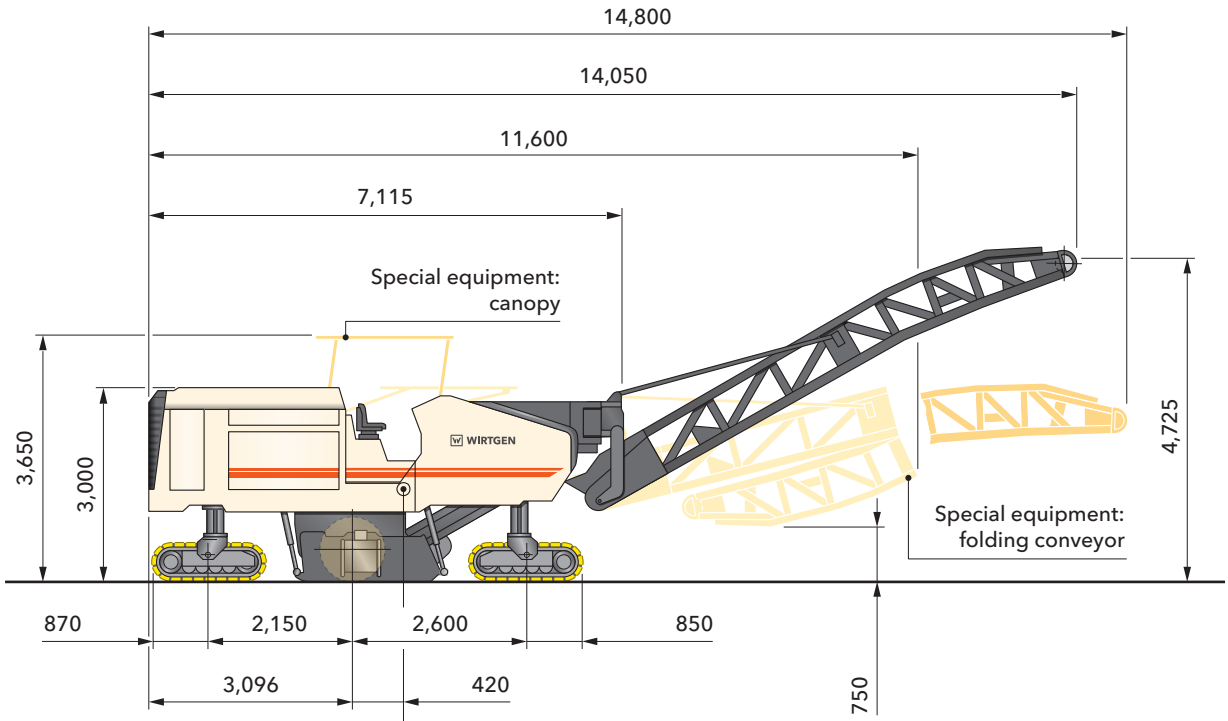
| | |
|---|---|
| **Milling drum** | |
| Milling width | 2,000 mm |
| Milling depth *[1] | 0 to 320 mm |
| Drum diameter with tools | 980 mm |
| **Engine** | |
| Manufacturer | Caterpillar |
| Type | C 15 ATAAC |
| Cooling | water |
| Number of cylinders | 6 |
| Rated power at 2,100 $min^{-1}$ | 403 kW / 540 HP / 548 PS |
| Maximum power at 1,800 $min^{-1}$ | 403 kW / 540 HP / 548 PS |
| Displacement | 15.2 l |
| Fuel consumption at rated power, full load | 109 l / h |
| Fuel consumption in field mix | 44 l / h |
| Emission standards | EU Stage 3a / US Tier 3, CN Stage 3 |
| **Electrical system** | |
| Electrical power supply | 24 V |
| **Tank capacities** | |
| Fuel tank | 1,310 l |
| Hydraulic oil tank | 300 l |
| Water tank | 3,430 l |
| **Driving properties** | |
| Travel speed in milling gear, max. | 0 to 84 m / min |
| Travel speed in travel gear, max. | 0 to 5 km / h |
| **Track units** | |
| Track units, front and rear (L x W x H) | 1,720 x 300 x 610 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 | 330 $m^3$ / h |

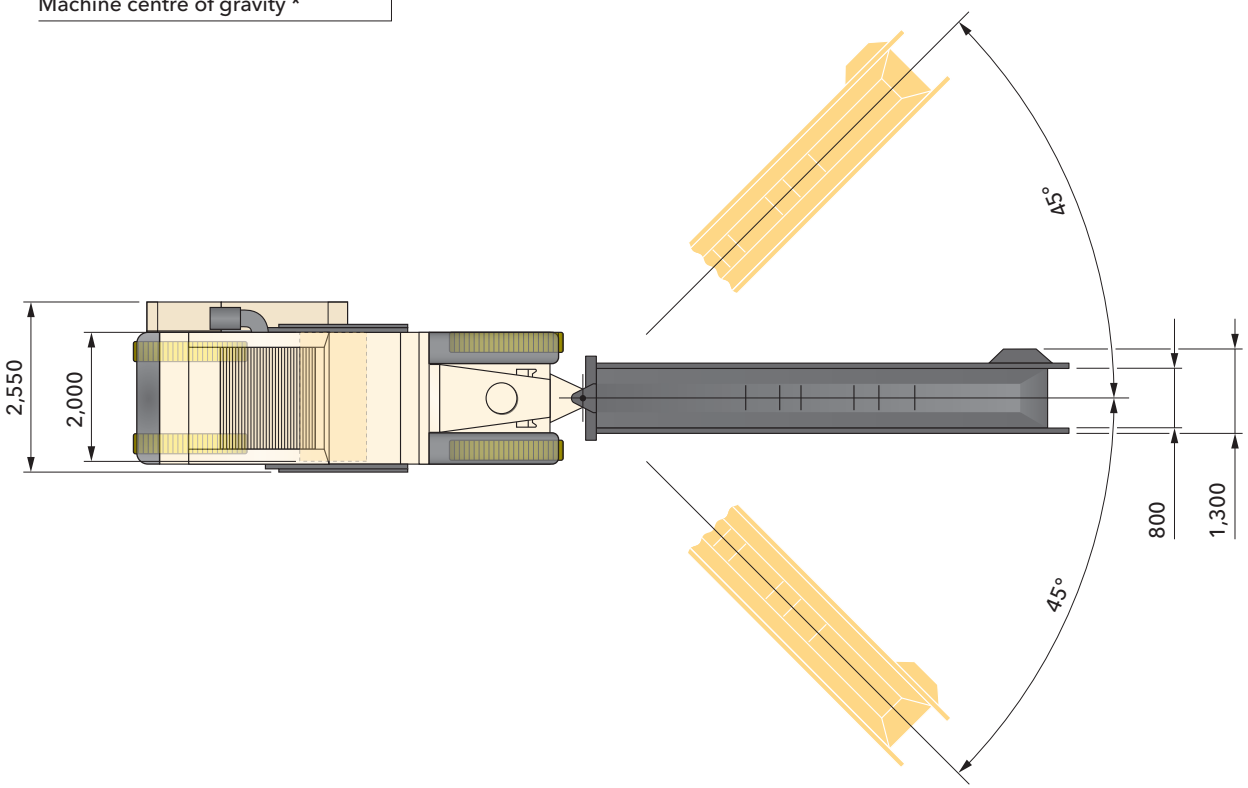
*[1] = The maximum milling depth may deviate from the value indicated due to tolerances and wear.

| | |
|---|---|
| **Weight of base machine** | |
| Empty weight of machine excluding tank contents | 27,700 kg |
| Operating weight, CE*[2] | 30,000 kg |
| Maximum operating weight (full tanks, full range of equipment) | 34,307 kg |
| **Weights of tank contents** | |
| Water tank filling | 3,430 kg |
| Diesel tank filling (0.83 kg/l) | 1,087 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.

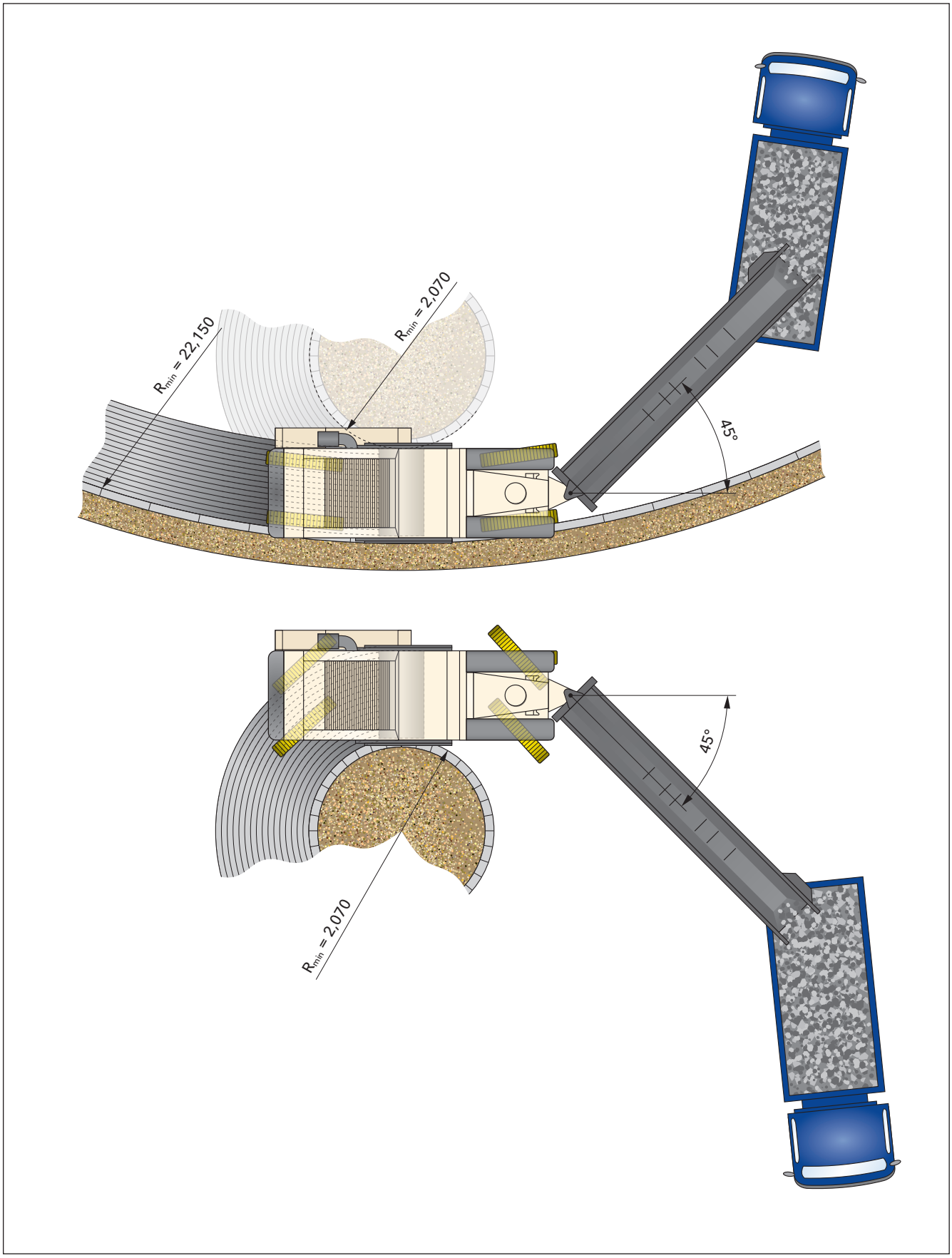
# Dimensions




Dimensions in mm

* Based on operating weight, CE with conveyor folded out




Milling radius, milling depth 150 mm, Dimensions in mm

# Standard equipment

| | |
|---|---|
| **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 | |
|---|---|
| Operator's stand with continuous vibration damping, elastically mounted, with one control panel on right and left and two optimally positionable operator's seats; the control panels are adjustable in height and angle as well as movable from side to side | ■ |
| 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 6 EMERGENCY STOP switches at sensible positions on the machine | ■ |
| Standard water filling, front (without filling pump) | ■ |
| 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 | ☐ |
| **Milling drums** | |
| Milling drum FB2000 HT22 LA15 FCS with 162 picks | ☐ |
| Milling drum FB2000 HT22 LA18 with 146 picks | ☐ |
| Milling drum FB2000 HT22 LA18 FCS with 146 picks | ☐ |
| Milling drum FB2000 HT22 LA8 FCS with 274 picks | ☐ |
| Milling drum FB2000 HT5 LA6X2 FCS with 672 picks | ☐ |
| Milling drum FB2000 HT22 LA8 with 274 picks | ☐ |
| Milling drum FB2000 HT5 LA6x2 with 672 picks | ☐ |
| Milling drum FB2000 HT22 LA25 with 124 picks | ☐ |
| Milling drum FB2000 HT22 LA25 FCS with 124 picks | ☐ |
| **Milled-out material loading** | |
| Discharge conveyor, 8,500 mm long, 800 mm wide | ☐ |
| VCS extraction system | ☐ |

■ = Standard equipment
▩ = Standard equipment, replaceable with optional equipment
☐ = Optional equipment

| | |
|---|---|
| **Machine control and levelling system** | |
| Level Pro levelling system wire-rope right + left | ☐ |
| Operating display LEVEL PRO additionally | ☐ |
| Slope control sensor | ☐ |
| **Operator´s stand** | |
| Weather canopy folds in electrohydraulically | ☐ |
| **Others** | |
| High-pressure water cleaner with water filling front | ☐ |
| Paint in one special colour (RAL) | ☐ |
| Folding seats for pick change with storage compartment | ☐ |
| Assembly trolley | ☐ |
| Pneumatic hammer with pick ejector / inserter | ☐ |
| Milling drum rotation device | ☐ |

■ = Standard equipment
▩ = Standard equipment, replaceable with optional equipment
☐ = Optional equipment

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