

Ultimate - Cold milling machine for professional applications.

# Cold Milling Machine

W 215



# Ultimate - Cold milling machine for professional applications.





**THE TOP PERFORMER AMONG THE COLD MILLING MACHINES IMPRESSES WITH MAXIMUM MILLING PERFORMANCE AND HIGH PRODUCTIVITY IN A BROAD SCOPE OF APPLICATIONS.**

**THE VCS VACUUM CUTTING SYSTEM PROVIDES GOOD VISIBILITY AND OPTIMUM WORKING CONDITIONS.**

**A COMPREHENSIVE SET OF LEVELLING EQUIPMENT INCLUDING MULTIPLEX AND ADDITIONAL SENSORS ENSURES HIGHLY PRECISE MILLING RESULTS.**

**THE INNOVATIVE FCS LIGHT ALLOWS THE USE OF DIFFERENT MILLING DRUMS TO INCREASE FLEXIBILITY AND MACHINE UTILIZATION.**

**A COMPREHENSIVE SET OF COMFORT FEATURES INCLUDING CAMERA SYSTEM, LED LIGHTS AND MILLING DRUM TURNING DEVICE ALLOWS CONVENIENT OPERATION OF THE MACHINE.**

# At a glance: the highlights of the new W 215

04  
05

## Highlights in operation (pages 4 / 5)

### 1 | EASE OF OPERATION

- > Clearly structured controls including control screen of robust design
- > Ergonomically designed multifunctional joystick
- > Canopy for increased operator comfort
- > Ideal arrangement of working lights for perfect visibility during night operations

### 2 | MAXIMUM PRECISION GUARANTEED BY LEVEL PRO PLUS

- > Maximum precision in evenness and cross slope
- > Simple, intuitive handling
- > Fully integrated into the machine management system
- > Large choice of sensors
- > New hydraulic cylinders at the side plates with integrated displacement sensors

### 3 | EASE OF MAINTENANCE

- > Readily accessible points of servicing
- > Extended service intervals for increased cost-efficiency
- > Simple, user-friendly machine diagnostics visualized on display screen
- > Convenient access including "Welcome" and "Go home" lights feature

## Highlights in driving and steering (pages 6 / 7)

### 4 | REDUCED DIESEL CONSUMPTION FOR INCREASED EFFICIENCY

- > State-of-the-art engine technology for low diesel consumption
- > Automatic engine speed management
- > Clear visualization of diesel consumption on display screen
- > Fan speed governed by engine load

### 5 | EXCELLENT MANOEUVRABILITY AND MOBILITY ON SITE

- > ISC electronic traction control
- > Track speed governed by steering angle
- > Quick-steering feature for high manoeuvrability in operation
- > Steering angle sensors integrated in hydraulic cylinders



## Highlights in performance and productivity (pages 10/11)

### 9 | MILLING PERFORMANCE INCREASED BY 25%

- > Increased engine performance with dynamic torque curve
- > Selectable milling drum speeds
- > New machine management system for maximum, efficient machine utilization
- > Automated feature initiating the milling process allows quick lowering of drum into the milling cut

### 10 | SIGNIFICANT REDUCTION OF TOOL COST

- > New "Delta18" milling drum technology for low cutting tool wear
- > Injection of water into the milling drum unit is governed by milling output
- > Optimized tool arrangement on the milling drum edge rings for reduced tool wear

8 |

## Highlights in milling and loading (pages 8/9)

### 6 | FCS LIGHT FOR A BROAD RANGE OF APPLICATIONS

- > FCS Light quick-change system for milling drums
- > Suitable for use with fine milling drum LA6x2
- > Suitable for use with ECO cutter LA25
- > Special milling drums available for special milling operations

### 7 | MILLING DRUM UNIT FEATURING STATE-OF-THE-ART CUTTING TECHNOLOGY

- > Extremely hard-wearing HT22 quick-change toolholder system
- > Right-hand side plate lift of 450 mm
- > Drum turning device for cutting tool replacement
- > Milling drum housing manufactured from highly wear-resistant steel

### 8 | WIDE, FAST LOADING CONVEYOR FOR MAXIMUM LOADING CAPACITY

- > Conveyor capacity matches increased milling performance
- > Continuously adjustable belt speed including automatic switching feature
- > Extremely wide conveyor slewing angles of 60° to the left and right
- > VCS Vacuum Cutting System
- > Hydraulically folding discharge conveyor

# Highlights in operation

06  
07

## INTUITIVE LEVELLING

The new **LEVEL PRO PLUS** levelling system offers intuitive, easy operation.

## FULLY INTEGRATED LEVELLING SYSTEM

Full integration of the **LEVEL PRO PLUS** levelling system into the machine management system provides for a high degree of automation.

## HIGH-PRECISION LEVELLING SYSTEM

The new **LEVEL PRO PLUS** levelling system achieves unprecedented evenness and highly precise cross slope values.



#### HYDRAULIC CYLINDERS INTEGRATED IN SIDE PLATES

The reference line is scanned by high-precision displacement sensors integrated in the hydraulic side plate cylinders and then displayed on the high-resolution **LEVEL PRO PLUS** control screen.

#### CLEARLY ARRANGED CONTROLS

The robust, easy-to-handle controls are arranged in a clear pattern and in line with application requirements. The weatherproof control screen provides clear information on all relevant data and operational parameters.

#### MULTIFUNCTIONAL JOYSTICK

Ergonomically designed multifunctional joystick with driving, steering, selecting operating mode, raising machine and switching off conveyor features.

#### LARGE CHOICE OF SENSORS

The new **LEVEL PRO PLUS** automatic levelling system enables a wide range of sensors to be used as standard equipment. Mechanical surface scanning, cross slope sensor, ultrasonic sensors or the Multiplex system ensure high-precision levelling for a wide variety of different milling applications.

#### CANOPY

The canopy features telescoping side panels on the left and right to allow maximum weather protection in all working situations.

#### PERFECT VISIBILITY

Numerous intelligently arranged working lights – optionally in LED design – provide perfect visibility during night operations.

#### JOB DATA

Pertinent job details are provided automatically to allow the visualization of daily performance rates.

#### READILY ACCESSIBLE POINTS OF MAINTENANCE

All points of maintenance and inspection have been grouped together in a few locations and offer ready access to enable quick and easy completion of the maintenance procedures.

#### EXTENDED SERVICING INTERVALS

Extended servicing intervals minimize costs. The next servicing date is displayed on the control screen.

#### DETAILED MACHINE DIAGNOSTICS

Numerous options to perform machine diagnostics via the display screen enable thorough testing of the different machine functions.

#### “WELCOME” AND “GO HOME” LIGHTS FEATURE

The access ladder and operator's platform are fully illuminated when approaching or walking away from the machine.



*LEVEL PRO PLUS levelling system.*



*Large operator's platform including toolbox.*

# Highlights in driving and steering

08  
09

## ISC TRACTION CONTROL

The intelligent electronic traction control system prevents the slip of individual track units in case of insufficient grip, thus ensuring maximum traction at all times.



## STEERING ANGLE SENSORS

A damage-proof, wear-resistant, maintenance-free system of displacement sensors integrated in the hydraulic cylinders detects the steering angle of the individual track units.

## EASY PAD SYSTEM

The WIRTGEN Easy Pad System (EPS) enables track pads to be replaced quickly and cost-efficiently.

## QUICK-STEERING FEATURE

An exceptionally quick steering system at the front and rear track units enables tremendous manoeuvrability on site.



#### ADVANCE SPEED GOVERNED BY STEERING ANGLE

Electronic adjustment of the track speed during cornering ensures maximum traction and low track pad wear.

#### FUEL-EFFICIENT ENGINE

State-of-the-art engine technology with ideal torque curve ensures powerful operation even at low engine speeds, thus minimizing diesel consumption.

#### EFFICIENT ENGINE SPEED MANAGEMENT

The engine speed is governed in accordance with the activated features, thus minimizing diesel consumption regardless of the job to be completed.

#### READOUT OF DIESEL CONSUMPTION

The machine's current diesel consumption can be viewed quickly and reliably on the display screen.

#### FAN SPEED GOVERNED BY ENGINE LOAD

Continuous adjustment of the fan speed to the engine load results in a further significant reduction of diesel consumption.

#### SWITCH FOR TRANSPORT MODE

The cold milling machine can be driven out of the milling cut quickly by manually activating a separate switch on the driving lever.



Clearly structured control screens with language-neutral labelling.

# Highlights in milling and loading

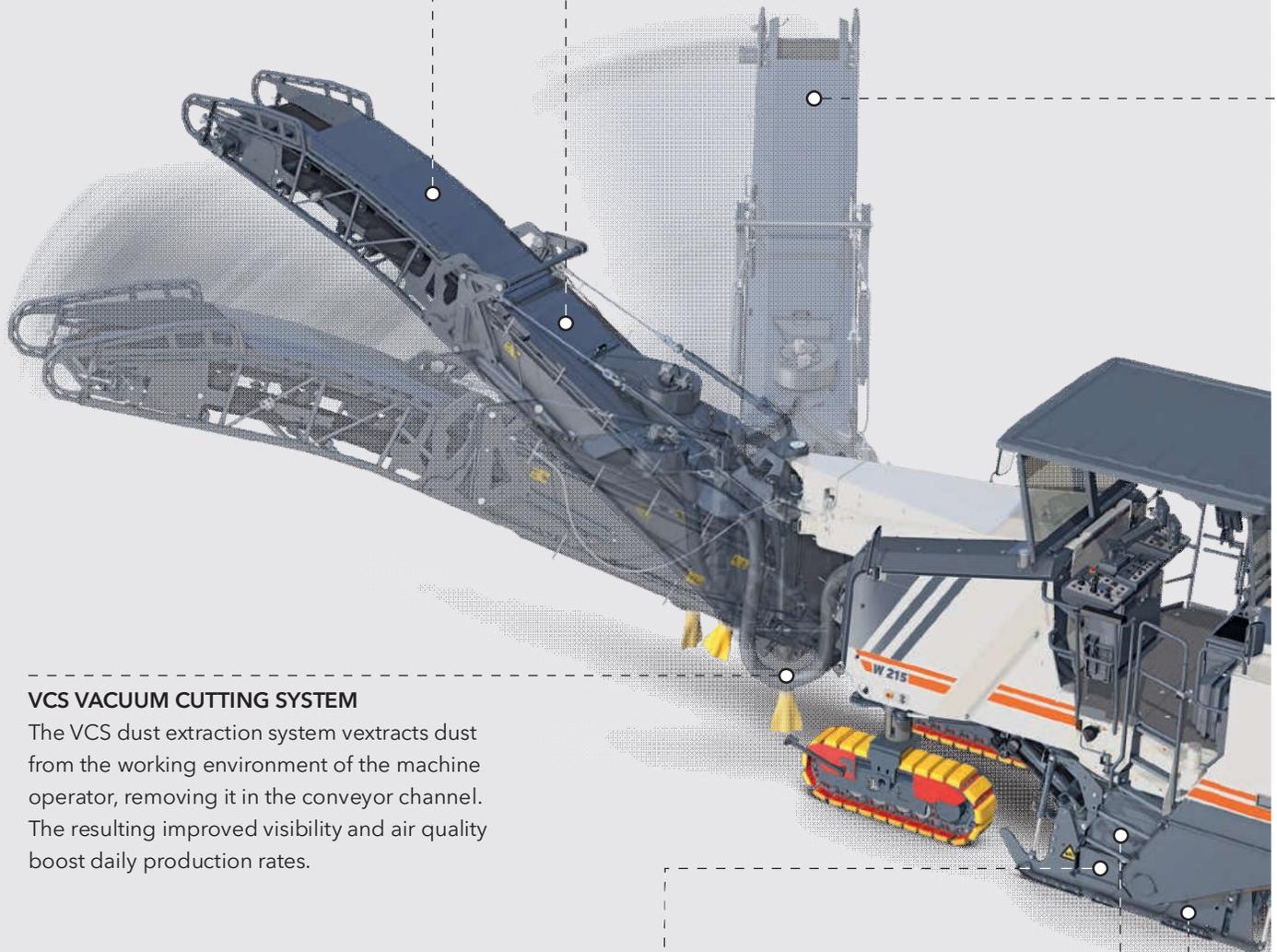
10  
11

## EXCEEDINGLY HIGH CONVEYOR CAPACITY

Paired with an increase in conveyor speed, the extra-wide loading conveyor offers tremendous conveying power to load even oversize trucks.

## ADJUSTABLE CONVEYOR BELT SPEED

The belt speed can be adjusted in line with requirements: from slow, low-wear operation to maximum loading capacity at high conveying speed.



## VCS VACUUM CUTTING SYSTEM

The VCS dust extraction system extracts dust from the working environment of the machine operator, removing it in the conveyor channel. The resulting improved visibility and air quality boost daily production rates.

## HEAVY-DUTY HT22 QUICK-CHANGE TOOLHOLDER SYSTEM

The HT22 quick-change toolholder system has been designed for tough operating conditions and is synonymous with durability, perfect tool rotation and easy tool replacement.

## HEAVY-DUTY MILLING DRUM HOUSING

The milling drum housing has been manufactured from highly wear-resistant steel plates for an extended lifespan.

### RIGHT-HAND SIDE PLATE LIFT OF 450 MM

Featuring a lift of up to 450 mm, the right-hand side plate enables flush-to-kerb milling even along exceptionally high concrete kerbstones.

### MILLING DRUM TURNING DEVICE

The hydraulically operated milling drum turning device enables quick, convenient cutting tool replacement.

### FINE MILLING DRUM LA6X2

The fine milling drum LA6x2 achieves maximum pavement evenness with exceedingly low roughness values, enabling the milled surface to be reopened to traffic immediately.

### ECO CUTTER LA25

The high-performance ECO cutter LA25 enables maximum milling performance while offering considerable cost savings: the reduced number of cutting tools minimizes tool costs, and the lower cutting resistance reduces diesel consumption.

### SPECIAL MILLING DRUMS

Thanks to the tried-and-tested FCS technology, we are in a position to offer milling drums for special applications, such as concrete milling.

### EXTREMELY WIDE SLEWING ANGLE

Conveyor slewing angles of 60° to either side optimize loading of the granulated material even when working at traffic intersections or in restricted space conditions.



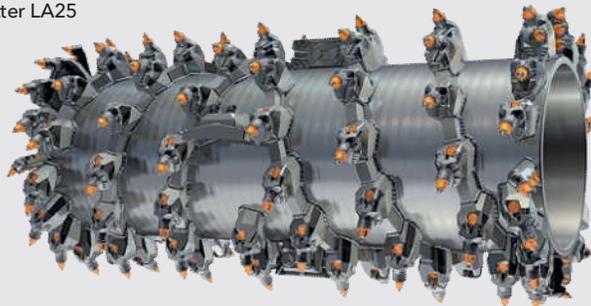
### FCS LIGHT QUICK-CHANGE SYSTEM FOR MILLING DRUMS

Rapid and flexible replacement of milling drums ensures maximum operational availability of the machine.

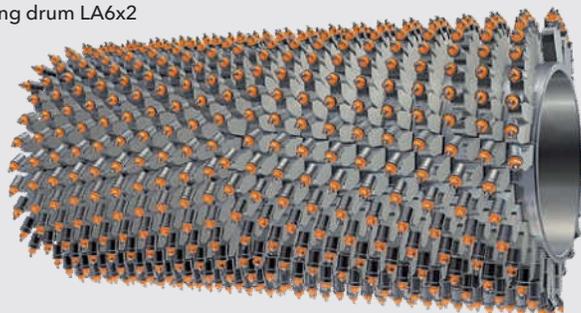
Standard milling drum LA18



ECO cutter LA25



Fine milling drum LA6x2



*The highly effective WIRTGEN milling drums deliver excellent milling performance.*

# Highlights in performance and productivity

12  
13

## HIGH ENGINE POWER

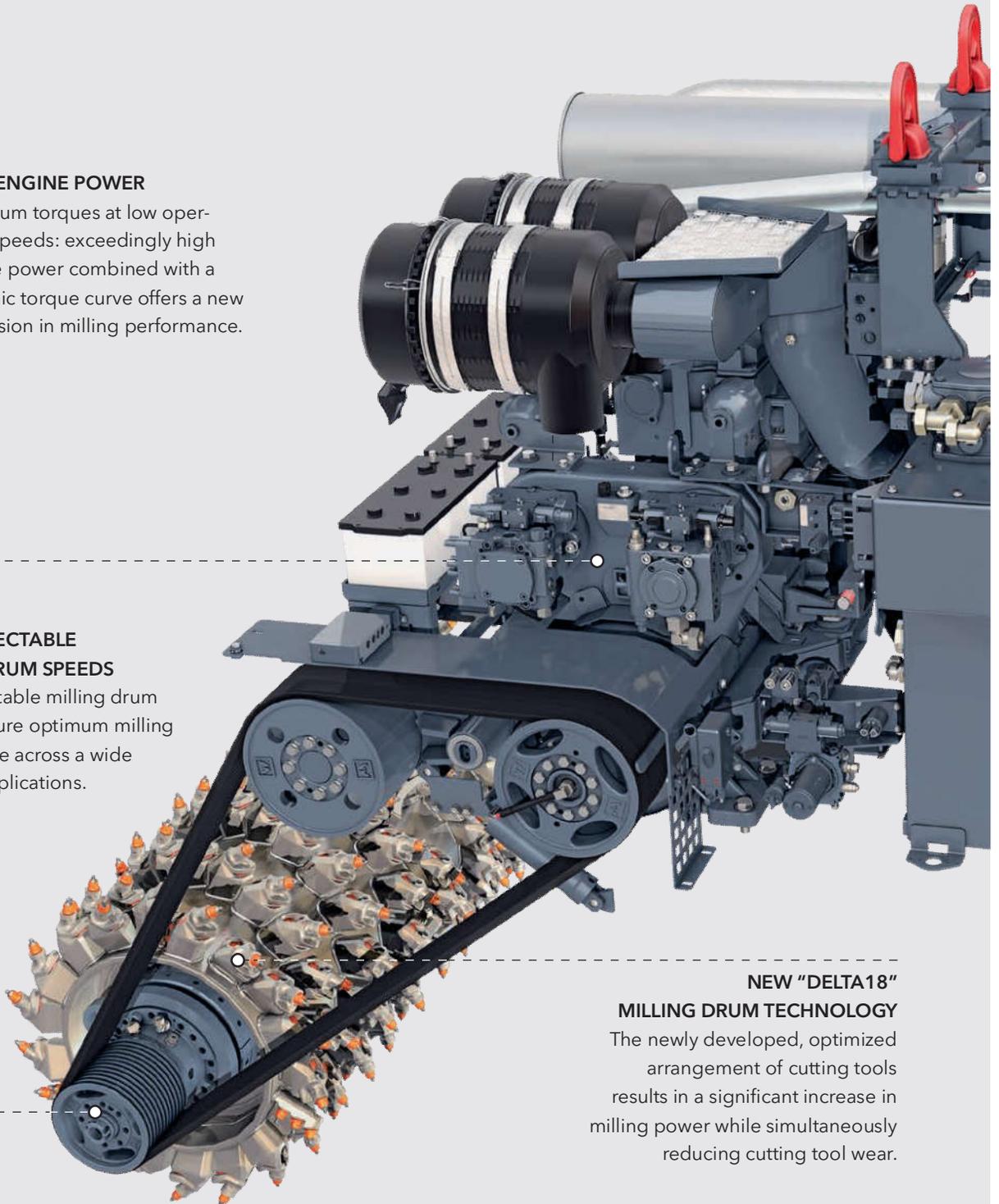
Maximum torques at low operating speeds: exceedingly high engine power combined with a dynamic torque curve offers a new dimension in milling performance.

## THREE SELECTABLE MILLING DRUM SPEEDS

Three selectable milling drum speeds ensure optimum milling performance across a wide range of applications.

## NEW "DELTA18" MILLING DRUM TECHNOLOGY

The newly developed, optimized arrangement of cutting tools results in a significant increase in milling power while simultaneously reducing cutting tool wear.



### STATE-OF-THE-ART MACHINE MANAGEMENT SYSTEM

The cold milling machine features an automated machine management system which has been optimized for high economic efficiency in a wide range of different applications.

### INITIATING THE MILLING PROCESS QUICKLY AND AUTOMATICALLY

Lowering the milling drum into and raising it out of the milling cut quickly and in accordance with the engine load ensures maximum productivity in each single cut.

### LOAD-CONTROLLED WATER SPRAY SYSTEM

The amount of water required to cool the cutting tools and minimize tool wear is injected automatically in accordance with the engine load.

### OPTIMIZED CUTTING TOOL ARRANGEMENT

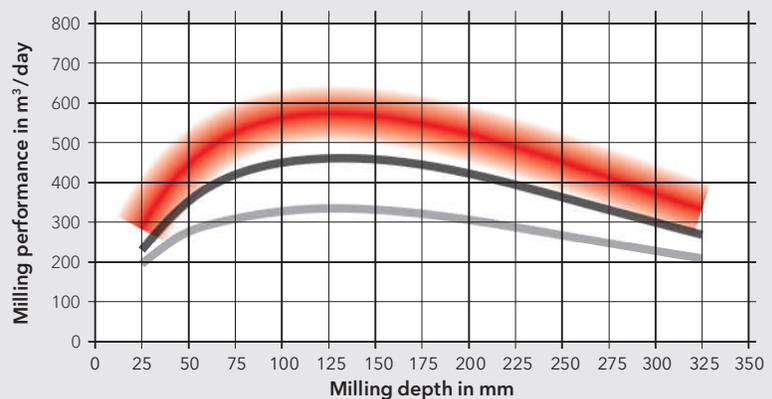
The new, specially designed edge rings are equipped with fewer cutting tools while at the same time producing even more accurate milling edges.

### EASY WATER REFILLING

The water tank is refilled quickly and easily during the milling operation via the water filling port arranged at the rear of the machine.



Milling performance in medium hard asphalt



- Cold milling machine W 215, FB2000
- Cold milling machine W 2000, FB2000
- Cold milling machine W 1900, FB2000

*The W 215 offers increased milling performance.*

# Technical specification W 215

14  
15

Milling drum	
Milling width	2,000 mm
Milling depth *1	0 to 330 mm
Drum diameter with tools	1,020 mm
Engine	
Manufacturer	CUMMINS
Type	QSX15
Cooling	Water
Number of cylinders	6
Rated power at 2,100 rpm	470 kW/630 HP/639 PS
Maximum power at 1,900 rpm	470 kW/630 HP/639 PS
Displacement	15 l
Fuel consumption at rated power	123 l/h
Fuel consumption in field mix	49 l/h
Emission standards	EU Stage 3a/US Tier 3, CN Stage 3
Electrical system	
Electrical power supply	24 V
Tank capacities	
Fuel tank	1,160 l
Hydraulic oil tank	200 l
Water tank	3,280 l
Driving properties	
Max. travel and milling speed	0 to 85 m/min (5 km/h)
Crawler units	
Crawler units, front and rear (L x W x H)	1,730 x 300 x 610 mm
Loading of the milled material	
Belt width of primary conveyor	850 mm
Belt width of discharge conveyor	850 mm
Theoretical capacity of discharge conveyor	375 m <sup>3</sup> /h

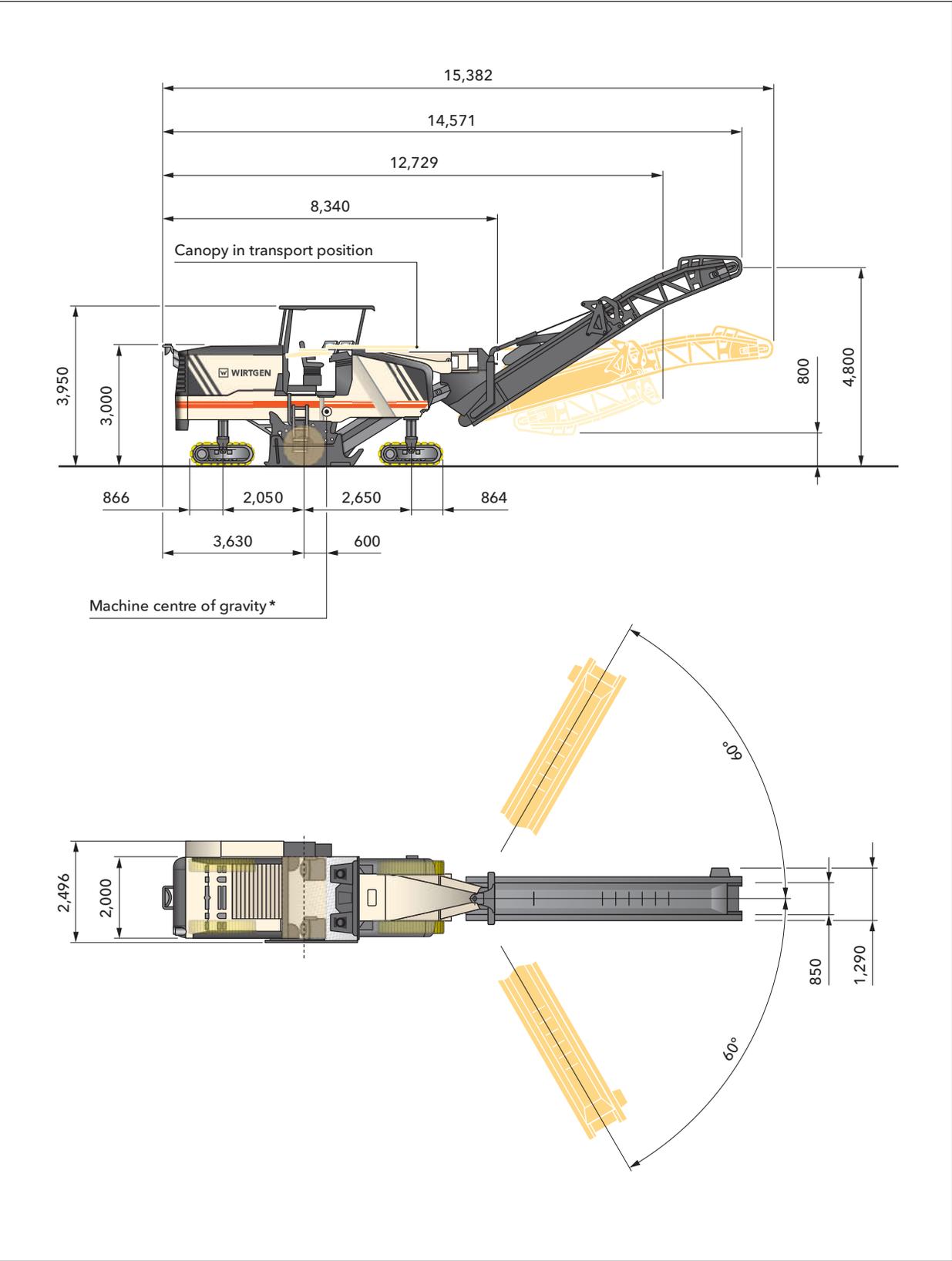
\*1 = The maximum milling depth may deviate from the value indicated due to tolerances and wear.

# Weights W 215

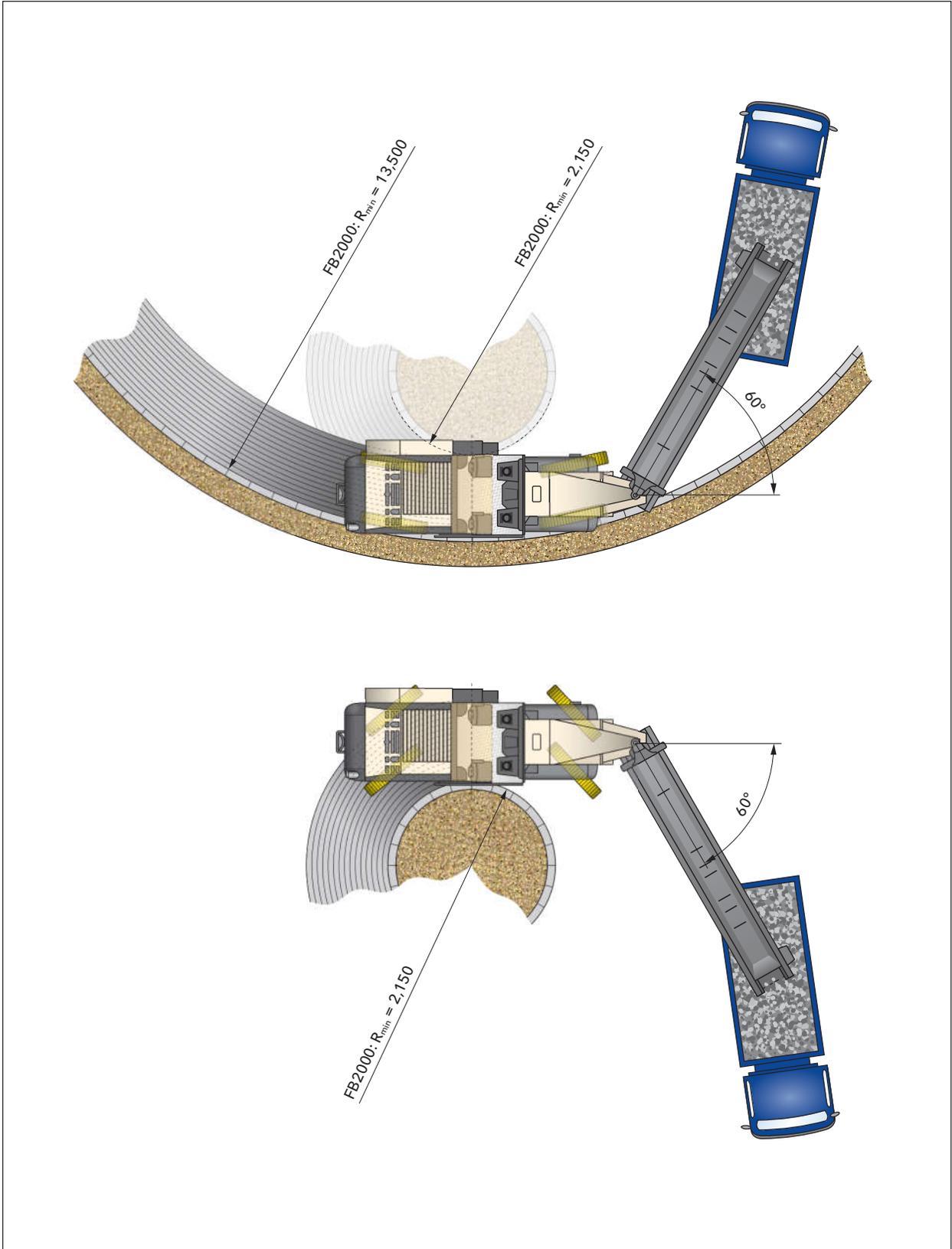
Weight of base machine	
Empty weight of machine excluding tank contents	27,940 kg
Operating weight, CE* <sup>2</sup>	30,290 kg
Maximum operating weight (full tanks, full range of equipment)	33,140 kg
Weights of tank contents	
Water tank filling	3,280 kg
Diesel tank filling (0.83 kg/l)	960 kg
Additional add-on weights	
Driver and tools	
Driver	75 kg
5 cutting tool containers	125 kg
On-board tools	30 kg
Optional milling drums in lieu of standard	
FCS milling drum FB2000 HT22 LA8 with 274 picks	660 kg
FCS milling drum FB2000 HT5 LA6X2 with 672 picks	960 kg
FCS milling drum FB2000 HT22 LA25 with 124 picks	-340 kg

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

# Dimensions W 215



Dimensions in mm  
\*Based on operating weight, CE with conveyor folded out



Milling radius, 150 mm milling depth, dimensions in mm

# Standard equipment W 215

18  
19

Base machine	
Basic machine with engine	■
Machine chassis with double-sided wasp waist	■
Hydraulically opening engine cover with noise insulation	■
Air compressor system	■
Battery operated hydraulic unit for engine cover/weather canopy	■
Cooling system with temperature-controlled fan speed	■
Milling drum unit	
Three milling drum rotation speeds with electric on/off function 104 rpm - 116 rpm - 129 rpm	■
Hydraulic material depressor with conveyor lifting function	■
Hydraulically adjustable and movable scraper blade with hydraulic locking system	■
Hydraulically lifting side plate, right clearance 450 mm and left clearance 330 mm	■
Water sprinkling strip in the milling drum unit	■
<b>Milling drum housing FB2000 FCS-L</b>	*
Milling drums	
<b>FCS milling drum FB2000 HT22 LA18 with 148 picks</b>	*
Milled-out material loading	
Conveyor belt system with manually or automatically controllable transport speed	■
Water sprinkling system in the primary conveyor	■
Discharge conveyor slewing angle left 60 degrees - right 60 degrees	■
Discharge conveyor, 7,900 mm long, 850 mm wide, with hydraulic folding device	■
<b>VCS extraction system</b>	*
Machine control and levelling system	
Multi-function control display showing important machine operating conditions	■
Extensive machine diagnosis in the control display	■
Milling power control with automatic on/off function	■
Two exterior panels for operating functions by ground personnel	■
Milling depth regulation with <b>LEVEL PRO PLUS</b> levelling system, with one operating display as well as one electrical height sensor in the hydraulic cylinder right and left on side plate	■
<b>Slope control sensor</b>	*
<b>Multiplex preliminary equipment comprising 4 sensor sockets</b>	*
<b>Multiplex 3-way right + left with 4 ultrasonic sensors</b>	*
<b>Hydraulic sensor for scanning ahead of the milling drum right + left</b>	*
<b>Operating display LEVEL PRO PLUS additionally</b>	*
Operator's stand	
Operator's stand with complete flexible mounting	■
Convenient operating panel with practical switches	■
Convenient footstep to the operator's stand, right and left	■
Covers for operating panels with lock	■

- = Standard equipment
- \* = Additional equipment in standard delivery
- = Optional equipment

Operator's stand	
Two mirrors front, one mirror middle and one mirror in rear area of the machine	■
<b>Weather canopy folds in electrohydraulically</b>	*
<b>Additional storage compartment on the operator's stand with seating</b>	*
<b>Monitor system as manoeuvring aid with two cameras</b>	*
Under-carriage and height adjustment	
Crawler unit tracks type B3	■
ISC - intelligent track speed control with hydraulic four chain drive	■
Freely selectable steering functions for the four-track steering	■
Extremely wear-resistant, two-piece EPS polyurethane track pads	■
Others	
Storage compartment between the rear crawler units for 4 pick bucket	■
Lighting package with 10 halogen work lights on the sides of the machine, located near the milling drum unit, on the bonnet and ladder area.	■
"Welcome" and "Go home" lights feature including LED lighting in the area of the operator's access and platform	■
USB charging socket 1,000 mA for smartphones, tablets and other electronic devices	■
Large tool package in lockable tool box	■
Total of 6 EMERGENCY STOP switches at sensible positions on the machine	■
Water high-pressure system with automatic on / off function, 18 bar, 67 l / min	■
Water tank filling from rear of machine	■
<b>Powerful LED lighting package 24 V with rotary beacons</b>	*
<b>High-pressure water cleaner, 150 bar 15 l / min</b>	*
<b>Hydraulic milling drum rotation device</b>	*
<b>Pneumatic hammer with pick ejector / inserter</b>	*
<b>Two folding seats for pick change</b>	*
<b>Lockable storage space for 4 pick buckets</b>	*

## Optional equipment W 215

Milling drum unit	
Transport carriage for FCS milling drums from FB2000 to FB2200	<input type="checkbox"/>
Milling drums	
FCS milling drum FB2000 HT22 LA8 with 274 picks	<input type="checkbox"/>
FCS milling drum FB2000 HT5 LA6X2 with 672 picks	<input type="checkbox"/>
FCS milling drum FB2000 HT22 LA25 with 124 picks	<input type="checkbox"/>

- = Standard equipment
- \* = Additional equipment in standard delivery
- = 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](http://www.wirtgen.com) · E-Mail: [info@wirtgen.com](mailto:info@wirtgen.com)

