

High-performance rear loader for professional milling operations.

# Cold Milling Machine

W 50 HR | W 55 HR



# High-Performance Rear Loader for Professional Milling Operations.



The extremely powerful half-meter cold milling machine features an efficient, modern operating concept at a working width of 0.5 m.

Easy-to-use additional and automatic functions increase the machine's performance potential to quickly complete any milling job.

The modern LEVEL PRO **PLUS** leveling system fully integrated into the machine control system guarantees high-precision milling results.

The machine can be equipped with a large number of different milling drums, increasing flexibility and machine utilization.

The high-performance rear loading system can be flexibly adjusted for optimum loading of the milled material.



W 55 HR

WIRTGEN

WIRTGEN

# Highlights of the W 50 HR and W 55 HR at a Glance

04  
05

## Operation

### 1 | HIGH PRECISION LEVELING

- > New LEVEL PRO **PLUS** leveling system (optional) fully integrated into the machine control system
- > Internally-developed RAPID SLOPE cross-slope sensor (optional)
- > Memory function for height adjustment

### 2 | OUTSTANDING VISIBILITY CONCEPT

- > Perfectly arranged LED working lights
- > Full illumination of the operator's platform and controls
- > Additional camera system (optional)

### 3 | SIMPLE AND COMFORTABLE TO OPERATE

- > New operating concept with automatic functions
- > Colored multifunctional control display built into the right adjustable armrest
- > Protective canopy
- > Hydraulic machine height adjustment with two speed settings



## Driving and Steering

### 4 | EXCELLENT MANEUVERABILITY

- > Extremely small milling radii
- > Short wheelbase ensures best maneuverability
- > Travel speed up to 8 km / h
- > Pivotal rear right support wheel for flush-to-curb milling

### 5 | PERFECT TRACTION AND TERRAIN MOBILITY

- > Standard four-wheel design for high machine stability
- > Powerfull all-wheel drive for maximum traction
- > Large ground clearance

## Performance and Productivity

### 8 | OUTSTANDING MILLING PERFORMANCE

- > Powerful diesel engine
- > Automatic load control system for maximum milling performance
- > Three different milling drum speeds
- > Adjustable amount of water for low water consumption

### 9 | EASY TO TRANSPORT AND SERVICE

- > Extremely compact machine design
- > Large toolbox at the machine front
- > Sturdy loading and lashing lugs for simple loading by crane
- > All service points easily accessible



## Milling and Loading

### 6 | NEW MILLING DRUM ASSEMBLY ENSURES MAXIMUM PERFORMANCE

- > Proven milling drum design with highly wear-resistant HT08 toolholder system
- > Widest range of applications available
- > Individually hydraulically lifting side plates
- > Milling drum rotation device for quick pick replacement

### 7 | MATERIAL LOADING WITH DISCHARGE CONVEYOR

- > Fast and easy to assemble and disassemble
- > Flexible loading regardless of the job situation
- > High capacity conveyor

# Highlights in Operation

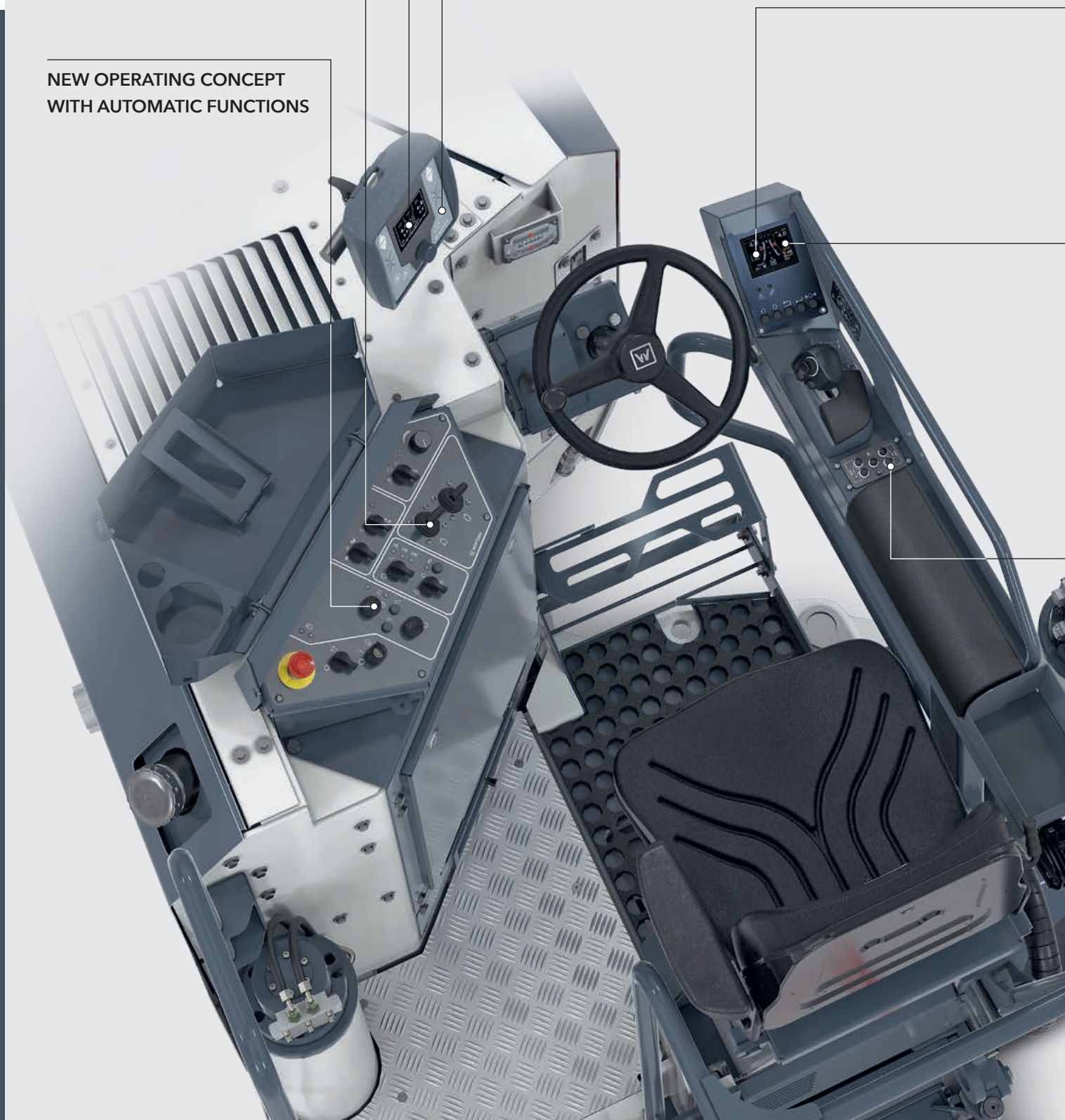
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HYDRAULIC MACHINE HEIGHT  
ADJUSTMENT WITH TWO SPEED  
SETTINGS

NEW OPERATING CONCEPT  
WITH AUTOMATIC FUNCTIONS

NEW LEVEL PRO **PLUS** LEVELING SYSTEM (OPTION)  
FULLY INTEGRATED INTO THE MACHINE CONTROL SYSTEM

INTERNALLY-DEVELOPED  
RAPID SLOPE CROSS-SLOPE SENSOR (OPTIONAL)



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### FULL ILLUMINATION OF THE OPERATOR'S PLATFORM AND CONTROLS

The fully illuminated operator's platform and switches and buttons offer perfect working conditions, including during operations in the darkness.

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### COLORED MULTIFUNCTIONAL CONTROL DISPLAY BUILT INTO THE RIGHT ADJUSTABLE ARMREST

The adjustable right armrest combines innovative design with perfect user-friendliness. Important data is displayed on the color controlled multifunctional display, e.g. the digital milling depth indicator.

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### MEMORY FUNCTION FOR HEIGHT ADJUSTMENT

For fast, convenient height adjustment, it's possible to save up to three different height positions per machine side to memory buttons on the multifunctional armrest.



### NEW LEVEL PRO **PLUS** LEVELING SYSTEM (OPTIONAL) FULLY INTEGRATED INTO THE MACHINE CONTROL SYSTEM

**LEVEL PRO PLUS** stands out due to its extremely precise milling results. The leveling system especially developed for cold milling machines is fully integrated into the machine control system, enabling a high degree of automation.

### INTERNALLY-DEVELOPED RAPID SLOPE CROSS-SLOPE SENSOR (OPTIONAL)

The internally-developed, electronic RAPID SLOPE cross-slope sensor ensures that the cross-slope profile is extremely precise. The cross-slope sensor makes it possible to work significantly faster while maintaining the same leveling quality.

### PERFECTLY ARRANGED LED WORKING LIGHTS

Perfectly arranged working lights make sure that the machine's entire surroundings are fully lit.

### ADDITIONAL CAMERA SYSTEM (OPTIONAL)

The camera system consists of one camera and a heavy-duty monitor. The monitor provides a high-resolution view of the loading situation from the camera at the end of the discharge conveyor.

### NEW OPERATING CONCEPT WITH AUTOMATIC FUNCTIONS

The innovative operating concept includes many automatic and additional functions, e. g. the water pump with automatic on / off function. The concept not only increases operator performance but also the productivity of the small milling machine.

### PROTECTIVE CANOPY

The height-adjustable canopy protects the machine operator from inclement weather, thus providing increased comfort during work.

### HYDRAULIC MACHINE HEIGHT ADJUSTMENT WITH TWO SPEED SETTINGS

The new feature on the left-hand control console enables easy or highly precise adjustment of the machine height to the current working situation.



Colored multifunctional control display.

# Highlights in Driving and Steering

PIVOTABLE REAR RIGHT SUPPORT WHEEL FOR FLUSH-TO-CURB MILLING

EXTREMELY SMALL MILLING RADII



POWERFULL ALL-WHEEL DRIVE FOR MAXIMUM TRACTION

SHORT WHEELBASE ENSURES BEST MANEUVERABILITY

TRAVEL SPEED OF UP TO 8 KM / H



### **EXTREMELY SMALL MILLING RADII**

Large steering angles to the left and right guarantee extremely small milling radii and turning circles, e. g. for milling around manhole covers.

### **SHORT WHEELBASE ENSURES BEST MANEUVERABILITY**

The short wheelbase ensures maximum maneuverability of the small milling machine, e. g. for milling in narrow places.

### **TRAVEL SPEED OF UP TO 8 KM / H**

High travel speeds of up to 8 km / h permit fast transport between two job locations.

### **PIVOTABLE REAR RIGHT SUPPORT WHEEL FOR FLUSH-TO-CURB MILLING**

The rear right support wheel can be pivoted in front of the milling drum mechanically to allow flush-to-curb milling.

### **STANDARD FOUR-WHEEL DESIGN FOR HIGH MACHINE STABILITY**

Four wheels offer maximum machine stability, traction, and maneuverability irrespective of the working situation.

### **POWERFULL ALL-WHEEL DRIVE FOR MAXIMUM TRACTION**

The standard all-wheel drive system guarantees maximum traction in challenging site conditions and during loading.

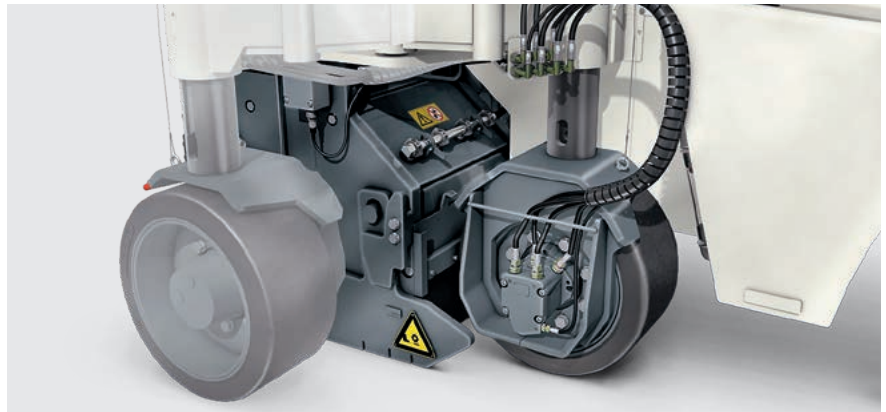
### **LARGE GROUND CLEARANCE**

Ample ground clearance not only prevents the machine from being damaged by obstacles but also enables difficult maneuvers, such as reversing in the milled cut or loading the machine on a flatbed truck.



**LARGE GROUND  
CLEARANCE**

**STANDARD FOUR-WHEEL  
DESIGN FOR HIGH  
MACHINE STABILITY**



*Swift pivoting of the right rear wheel.*



*The front axle enables large steering angles.*

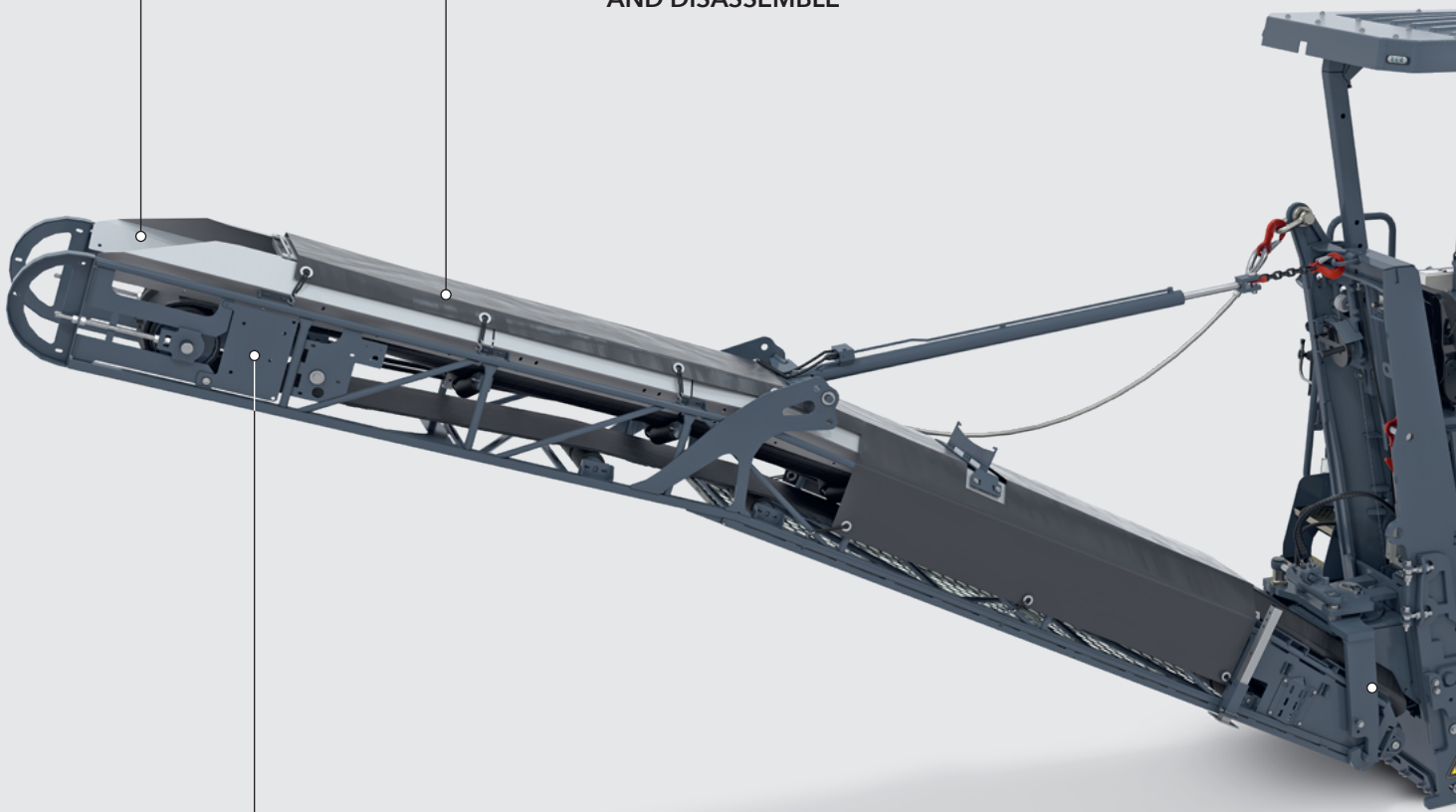
# Highlights in Milling and Loading

10  
11

HIGH CAPACITY CONVEYOR

FAST AND EASY TO ASSEMBLE  
AND DISASSEMBLE

FLEXIBLE LOADING  
REGARDLESS OF THE  
JOB SITUATION



PROVEN MILLING DRUM DESIGN WITH HIGHLY  
WEAR-RESISTANT HT08 TOOLHOLDER SYSTEM

**WIDEST RANGE OF APPLICATIONS AVAILABLE**



**INDIVIDUALLY HYDRAULICALLY LIFTING SIDE PLATES**

### **PROVEN MILLING DRUM DESIGN WITH HIGHLY WEAR-RESISTANT HT08 TOOLHOLDER SYSTEM**

Toolholders with an increased wear path enable an extremely long lifespan while additional tools in the peripheral area of the milling drum produce clean milling edges.

### **WIDEST RANGE OF APPLICATIONS AVAILABLE**

The W 50 HR and W 55 HR cover a wide range of applications extending from partial pavement rehabilitations and tie-in milling to the rehabilitation of industrial floors. In addition, special milling drums and ancillary equipment enable the milling of rumble strips, slots, and gutters.

### **INDIVIDUALLY HYDRAULICALLY LIFTING SIDE PLATES**

Individually hydraulically lifting side plates provide effective closure of the milling chamber on both sides of the machine.

### **MILLING DRUM ROTATION DEVICE FOR QUICK PICK REPLACEMENT**

The hydraulically operated milling drum rotation device and pick ejector make it easier and quicker to change picks.

### **FAST AND EASY TO ASSEMBLE AND DISASSEMBLE**

A special coupling device enables the loading conveyor to be attached or removed in a few swift steps by only one person. This increases the flexibility of the machine.

### **FLEXIBLE LOADING REGARDLESS OF THE JOB SITUATION**

The loading conveyor is adjustable both laterally and in height, thus allowing the material to be loaded even in difficult job situations.

### **HIGH CAPACITY CONVEYOR**

The 400 mm wide loading conveyor (optional) is provided with a rugged cleat profile to ensure effective material transport.



*Intelligent milling drum design.*

# Highlights in Performance and Productivity

12  
13

EXTREMELY COMPACT MACHINE DESIGN

POWERFUL DIESEL ENGINE

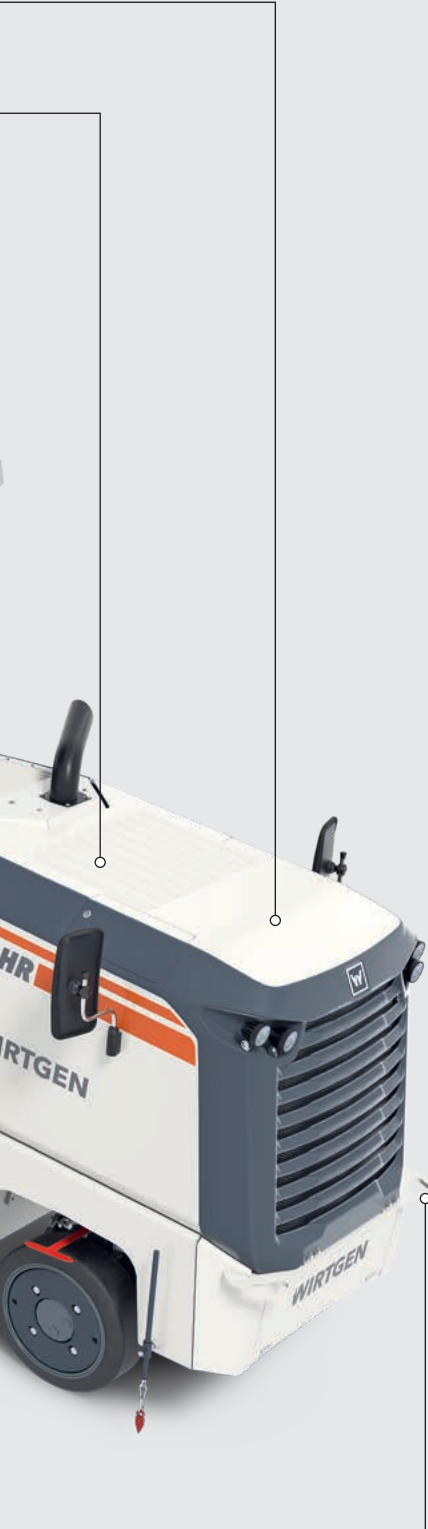
AUTOMATIC LOAD CONTROL SYSTEM  
FOR MAXIMUM MILLING PERFORMANCE



ALL SERVICE POINTS  
EASILY ACCESSIBLE

THREE DIFFERENT MILLING DRUM SPEEDS

ADJUSTABLE AMOUNT OF WATER  
FOR LOW WATER CONSUMPTION



**STURDY LOADING AND LASHING LUGS FOR SIMPLE LOADING BY CRANE**

**POWERFUL DIESEL ENGINE**

The machine's high engine output at optimum torque guarantees rapid and powerful operation regardless of the milling depth.

**AUTOMATIC LOAD CONTROL SYSTEM FOR MAXIMUM MILLING PERFORMANCE**

The electronic load limit controller integrated into the machine control system keeps the machine constantly in the optimally high milling performance range.

**THREE DIFFERENT MILLING DRUM SPEEDS**

Milling drum speed one is selected for low diesel and cutting tool consumption, milling drum speed two for maximum milling performance, milling drum speed three for the best milling surface quality.

**ADJUSTABLE AMOUNT OF WATER FOR LOW WATER CONSUMPTION**

The amount of water injected, which can be adjusted as required, ensures economical water consumption in every application.

**EXTREMELY COMPACT MACHINE DESIGN**

The machine's compact design not only enables quick turning and maneuvering on site but also facilitates machine transport.

**LARGE TOOLBOX AT THE MACHINE FRONT**

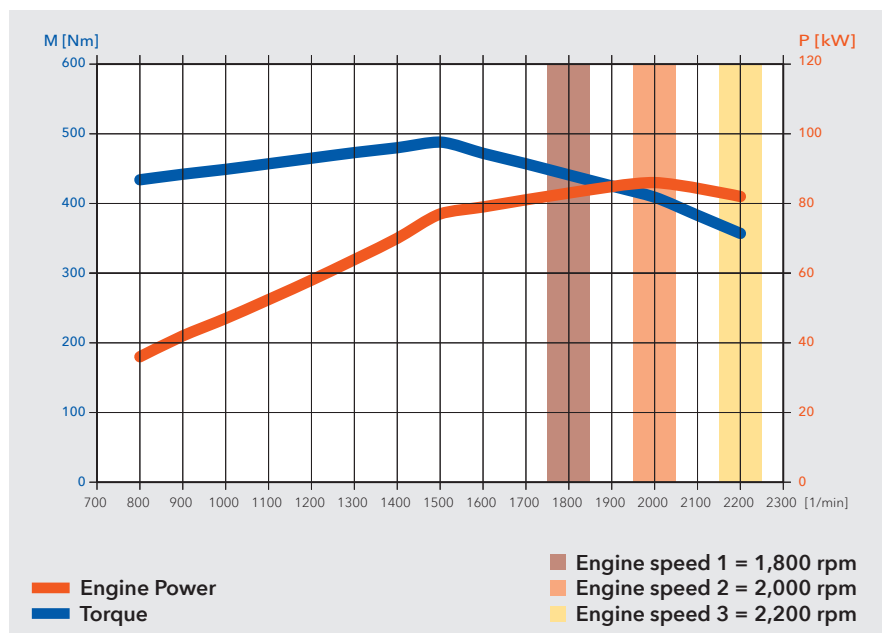
At the front, the W 50 HR offers storage to accommodate up to 3 pick containers.

**STURDY LOADING AND LASHING LUGS FOR SIMPLE LOADING BY CRANE**

Sturdy loading and lashing lugs ensure quick and easy loading of the machine by crane.

**ALL SERVICE POINTS EASILY ACCESSIBLE**

Excellent accessibility to all check points and points of maintenance minimizes maintenance requirements.



*Different engine speeds for low diesel consumption and maximum milling performance.*

# Wide Range of Applications

WIRTGEN's W 50 HR and W 55 HR small milling machines are known especially for their outstanding versatility and flexibility.

Thanks to their maneuverability, they are the ideal solution for milling jobs where space is at a premium. Their compact dimensions also make them easier to transport. The machines' minimal milling radius is ideal for milling around road installations and obstacles as well as around tight curves. In addition, special milling drums and ancillary equipment make it easy to mill rumble strips, slots, and tie-ins.

The W 50 HR and W 55 HR are also the best choice for the rehabilitation of industrial spaces and production hall floors due to their small size.

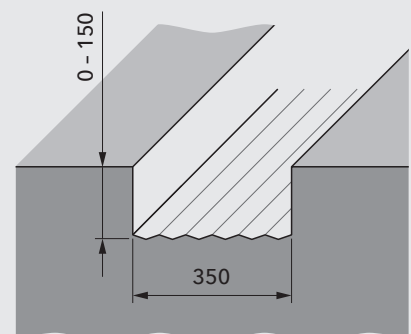
The same applies to patching specific sections of road or adding and removing road surface markings.



## SPECIAL MILLING CONTOUR: MILLING WITH DIFFERENT WORKING WIDTHS

Milling drums with a variety of tool spacings or working widths can be replaced in a short amount of time for maximum use of range and high machine capacity utilization.

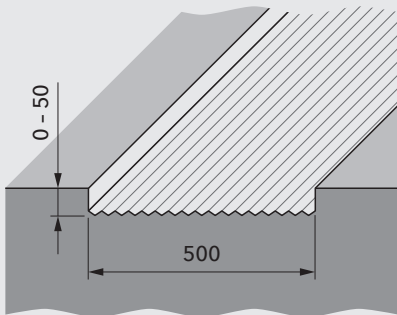
Dimensions in mm:



**SPECIAL MILLING CONTOUR:  
FINE MILLING**

Fine milling drums are fitted with a large number of picks that remove only a few millimeters of the pavement at close intervals. Fine milling can be used to remove deformations in the pavement creating even, level surfaces in the process.

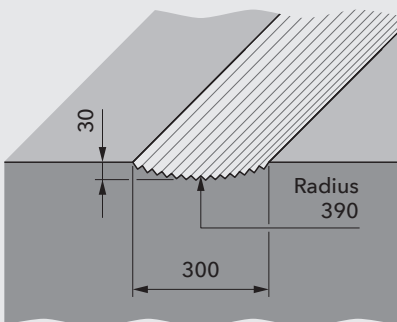
Dimensions in mm:



**SPECIAL MILLING CONTOUR:  
MILLING GUTTERS**

Both small milling machines can also produce profiles with other cross-sections, e.g. conical profiles, V-shaped profiles, or barrel profiles. These drainage channels are created in agriculture, on parking lots, or on subordinate roads.

Dimensions in mm:



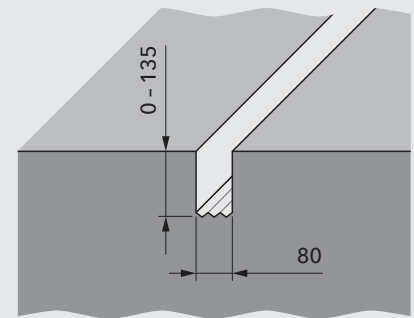
# Wide Range of Applications



## SPECIAL MILLING CONTOUR: MILLING GROOVES

The milling machines can be fitted with narrow milling drums for cutting slots and grooves, e. g. to lay cables.

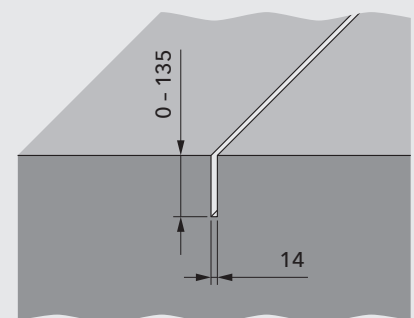
Dimensions in mm:



## SPECIAL MILLING CONTOUR: MILLING JOINTS

For special applications, both machines can be equipped with saw blades that enable the milling of connection joints, movement joints or expansion joints. The joints produced can then be filled with casting material.

Dimensions in mm:



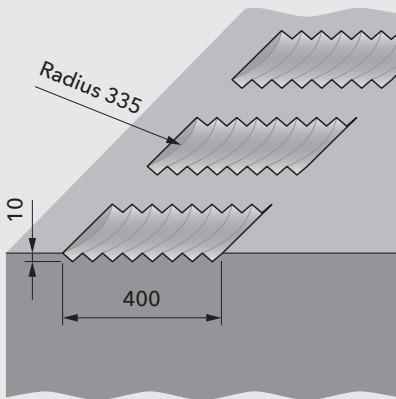


**SPECIAL MILLING CONTOUR:  
MILLING RUMBLE STRIPS**

Rumble strips extending along the edge of the road are intended to alert tired drivers and warn them when they are drifting off the road. By simply modifying the milling machine with the rumble strip attachment package, grooves can be milled into the asphalt pavement.



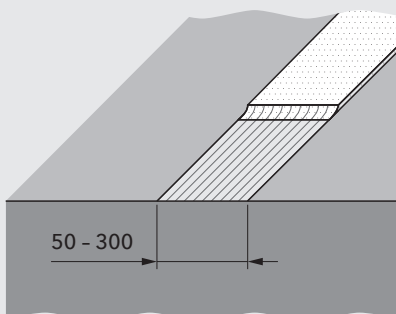
Dimensions in mm:



**SPECIAL MILLING CONTOUR:  
REMOVAL OF ROAD MARKINGS**

Spray paint markings or thermoplastic markings can be fully removed with the milling machine. Special milling drums with a narrow tool spacing and tapered edges on both sides are used to create a gentle transition from the non-milled surface to the milled-out strip.

Dimensions in mm:



# Technical Specifications

## W 50 HR | W 55 HR

	W 50 HR	W 55 HR
<b>Milling Drum</b>		
Milling width	500 mm	
Milling depth <sup>*1</sup>	0 to 180 mm	
Drum diameter with tools	670 mm	
<b>Engine</b>		
Manufacturer	Dongfeng Cummins	
Type	QSB4.5-C110-III	
Cooling	Water	
Number of cylinders	4	
Rated power at 2,200 min <sup>-1</sup>	82 kW / 110 HP / 111 PS	
Maximum power at 2,000 rpm	86 kW / 115 HP / 117 PS	
Displacement	4.5 l	
Fuel consumption at rated power   during a mixture of job site operations	22.9 l / h   9.2 l / h	
Emission standards	EU Stage 3a / US EPA Tier 3, CN Stage 3	
<b>Electrical System</b>		
Power supply	24 V	
<b>Tank Capacities</b>		
Fuel	160 l	
Hydraulic oil	80 l	
Water	320 l	
<b>Driving Properties</b>		
Milling speed	0 to 30.5 m / min (0 to 1.83 km / h)	
Travel speed	0 to 133 m / min (0 to 8 km / h)	
<b>Tires</b>		
Tire size, front (Ø x W)	559 x 178 mm	
Tire size, rear (Ø x W)	559 x 254 mm	
<b>Loading of the Milled Material</b>		
Belt width of discharge conveyor	–	400 mm
Theoretical capacity of discharge conveyor	–	84 m <sup>3</sup> / h

<sup>\*1</sup> = The maximum cutting depth may deviate from the value indicated due to tolerances and wear

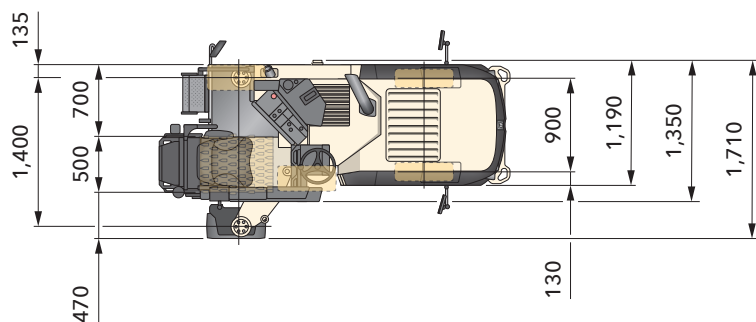
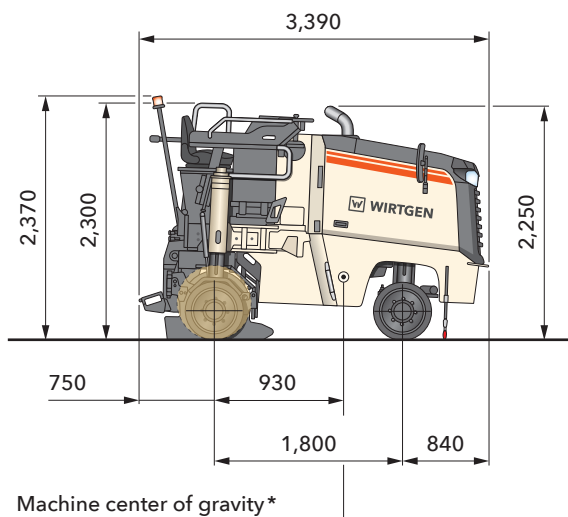
	W 50 HR	W 55 HR
<b>Basic Machine Weight</b>		
Net weight of machine excluding conveyor, tank contents, and additional weight at front	5,400 kg	6,450 kg
Operating weight, CE *2 excluding conveyor	5,700 kg	6,750 kg
Maximum operating weight (full tanks, full range of equipment)	6,000 kg	7,550 kg
<b>Weight of Operating Agents</b>		
Water		320 kg
Fuel (0.83 kg / l)		133 kg
<b>Additional Weight</b>		
<b>Operator and Tools</b>		
Machine operator		75 kg
Two pick containers		50 kg
On-board tools		30 kg
<b>Optional Additional Equipment</b>		
Discharge conveyor, 4,900 mm long, 400 mm wide	–	470 kg
<b>LEVEL PRO PLUS</b> leveling system right and left		10 kg
RAPID SLOPE cross-slope sensor for <b>LEVEL PRO ACTIVE</b> leveling system		3 kg
Monitor system with 1 camera and an additional screen	–	7 kg

\*2 = Weight of machine, half weight of all operating materials, machine operator, on-board tools, no optional equipment features

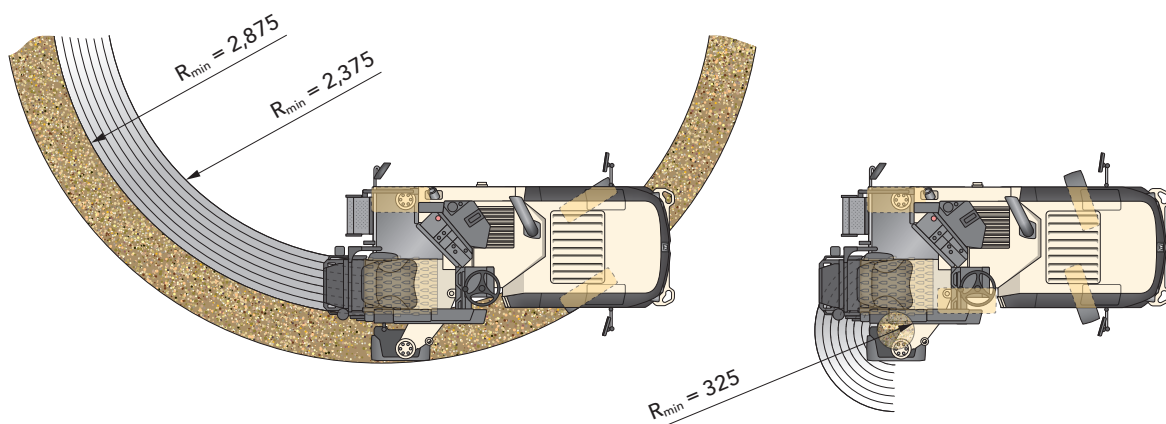
# Dimensions

## W 50 HR | W 55 HR

W 50 HR Cold Milling Machine

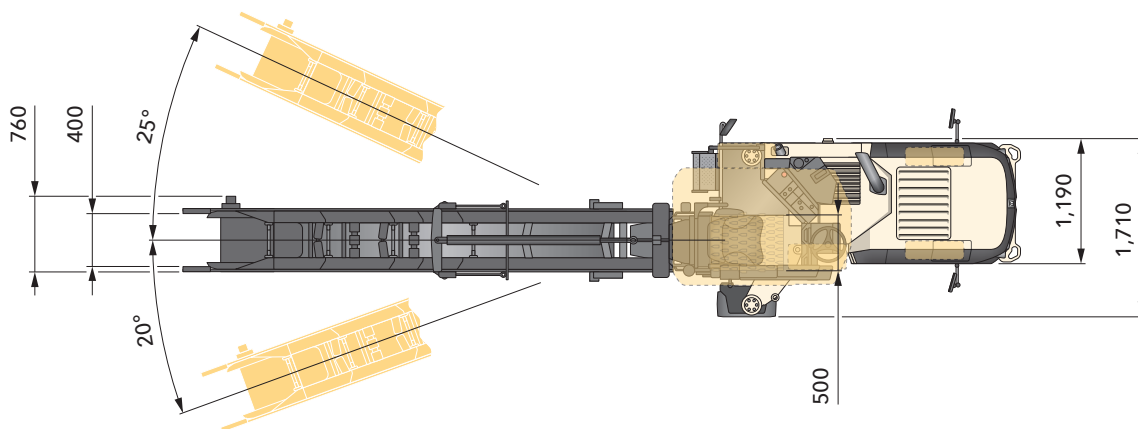
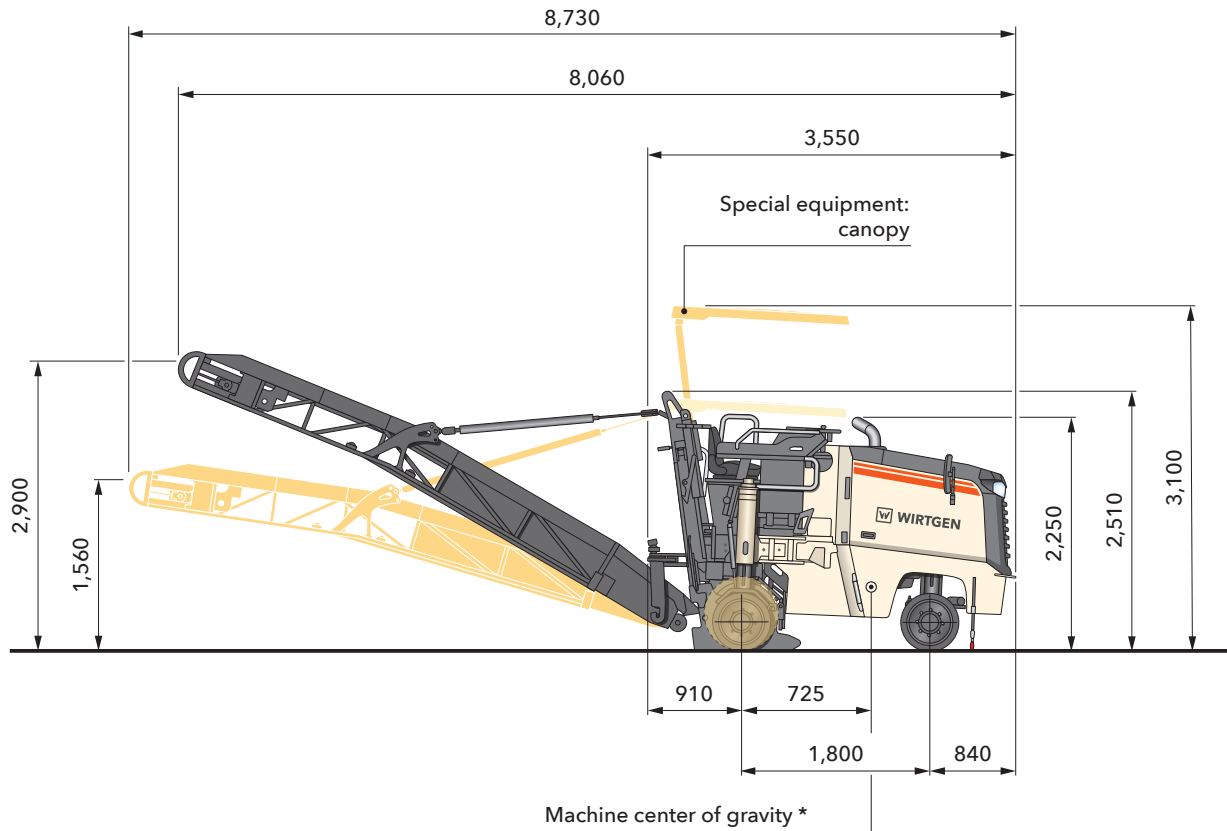


Milling Radius of W 50 HR and W 55 HR Cold Milling Machines, Milling Depth of 150 mm



Dimensions in mm  
\* = Based on operating weight, CE

W 55 HR Cold Milling Machine



Dimensions in mm

\* = Based on operating weight, CE with conveyor folded out

# Standard Equipment

## W 50 HR | W 55 HR

22  
23

	W 50 HR	W 55 HR
<b>Basic Machine</b>		
Basic machine with water-cooled engine	■	■
Elastically mounted engine station with low vibration and low noise	■	■
<b>Milling Drum Unit</b>		
Milling drum housing FB500, milling depth 180 mm for use without discharge conveyor, including drum housing seal at rear	■	—
Milling drum housing FB500, milling depth 180 mm for use with discharge conveyor, including scraper	—	■
Wide opening scraper plate with automatic electric safety drum shutdown	■	■
Hydrostatic milling drum drive	■	■
Side plate with hydraulic lifting function	■	■
<b>Milling Drums</b>		
Milling drum FB500 HT08 LA15 with 54 picks	■	■
<b>Machine Control and Leveling System</b>		
Digital milling depth indicator in the control display	■	■
Pre-programmable height positions with automatic positioning	■	■
<b>Operator's Platform</b>		
Operator's platform without weather canopy	■	—
Operator's platform with weather canopy	—	■
Low-vibration operator's platform with steering on right-hand side	■	■
User-friendly control panel with tried-and-tested switches	—	■
Right armrest with the most essential operating functions and an integrated machine display that shows all of the main machine parameters	■	■
Illuminated control panel / nighttime design	■	■
Robust anti-vandalism protection for the controls	■	■
<b>Track Unit and Height Adjustment</b>		
Precise machine height adjustment at 2 speeds using the rear lifting columns	■	■
For milling along kerb edges, the rear right support wheel can be swivelled mechanically in front of the milling drum	■	■
Hydraulically assisted spring-loaded brake	■	■
<b>Others</b>		
Lighting system including 4 LED headlights and a rotating beacon	■	■
Water sprinkler unit with tank (320 l capacity)	■	■
Set of tools for maintenance and servicing	■	■
Additional storage compartment for pick containers	■	—
Safety package with EMERGENCY STOP switch	■	■
Towing device	■	■
Reversing horn	■	■
Rear-view mirror front left	■	■
Additional weight at the front, 490 kg	—	■
Additional wheel-weight on the front axle, 165 kg	—	■

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

# Optional Equipment

## W 50 HR | W 55 HR

	W 50 HR	W 55 HR
<b>Milling Drums</b>		
Milling drum FB80 HT02 MD135 with 24 picks	<input type="checkbox"/>	<input type="checkbox"/>
Microfine milling drum FB200, HT5, LA3, with 67 picks	<input type="checkbox"/>	<input type="checkbox"/>
Milling drum FB350 HT08 LA15 with 44 picks	<input type="checkbox"/>	<input type="checkbox"/>
Fine milling drum FB400 HT5 LA6 with 67 picks	<input type="checkbox"/>	<input type="checkbox"/>
Fine milling drum FB500 HT5 LA6 with 84 picks	<input type="checkbox"/>	<input type="checkbox"/>
Fine milling drum FB300 HT5 LA6 with 51 picks	<input type="checkbox"/>	<input type="checkbox"/>
Saw blade FB14, milling depth of 135 mm, adapter included	<input type="checkbox"/>	<input type="checkbox"/>
<b>Loading of the Milled Material</b>		
Discharge conveyor, 4,900 mm long, 400 mm wide	—	<input type="checkbox"/>
<b>Machine Control and Leveling System</b>		
<b>LEVEL PRO PLUS</b> leveling system right and left	<input type="checkbox"/>	<input type="checkbox"/>
RAPID SLOPE cross-slope sensor for <b>LEVEL PRO ACTIVE</b> leveling system	<input type="checkbox"/>	<input type="checkbox"/>
<b>Operator's Platform</b>		
Monitor system with 1 camera and an additional screen	—	<input type="checkbox"/>

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



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