

Leading through passion. Cold Milling Machines W 35 Ri



# At a glance: the highlights of the new W 35 Ri





# Highlights in operation

- > Variable operator's platform
- > Ergonomic multifunctional armrest
- > Simple, intuitive operating concept
- > Full view of the right-hand side plate and important work areas
- > Display screen for machine parameters
- > New, precise LEVEL PRO PLUS levelling system
- > Fast-responding electronic slope sensor
- > Levelling by means of laser technology

# Highlights in driving and steering

- > Excellent manoeuvrability and extremely small milling radii
- > Extremely compact machine design
- > Precise steering
- > Hydraulic all-wheel drive
- > Electronically controlled traction drive
- > Precise height adjustment
- > Memory function for height adjustment

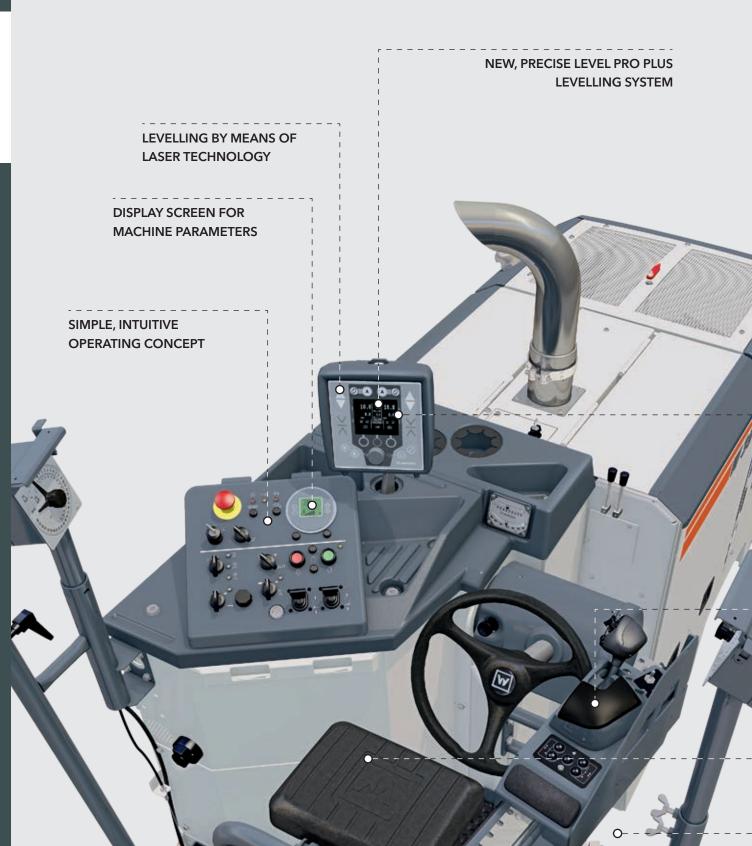
# Highlights in milling and loading

- > New, wear-resistant HT08 toolholder system
- > Milling power control for maximum advance speeds
- > Three different milling drum speed options
- > Milling drum housing for milling widths of up to 350 mm or 500 mm
- > Quick exchange of milling drums
- > Powerful, load-dependent water spray system at the milling drum
- > Two different conveyor lengths

# Highlights in performance and productivity

- > Powerful engine complying with emission standards EC Stage 3b/US Tier 4 Final
- > Optional diesel particulate filter
- > Many new automated functions
- > Quick and easy maintenance
- > Supplementary weights
- > State-of-the-art WITOS telematics system
- > Perfectly arranged LED working lights

# Highlights in operation



# SIMPLE, INTUITIVE OPERATING CONCEPT

The simple operating concept not only improves operator performance but also increases the productivity of the small milling machine.

# DISPLAY SCREEN FOR MACHINE PARAMETERS

Important machine parameters are shown clearly on the screen mounted in the operator's field of view.

# LEVELLING BY MEANS OF LASER TECHNOLOGY

Highly precise levelling by means of laser sensors is suitable, for example, for indoor milling.

## NEW, PRECISE LEVEL PRO PLUS LEVELLING SYSTEM

The LEVEL PRO PLUS levelling system is fully integrated into the machine's control system and offers simple and intuitive operation, guaranteeing precise milling results.

### FAST-RESPONDING ELECTRONIC SLOPE SENSOR

The "Rapid Slope" electronic slope control sensor enables surfaces to be produced with a predefined cross slope.

### ERGONOMIC MULTIFUNCTIONAL ARMREST

The individually adjustable armrest with multifunctional joystick permits quick, ergonomic operation.

## VARIABLE OPERATOR'S PLATFORM

To allow flexible, ergonomic operation, the small milling machine can be operated either from the operator's platform on the machine or from the operator's platform at the rear of the machine. Switching from one position to the other is completed quickly and easily right on site.

# FULL VIEW OF THE RIGHT-HAND SIDE PLATE AND IMPORTANT WORK AREAS

A free view towards the front and the milling edge, to the right-hand side plate and towards the rear enables operation in line with application requirements.



Fully equipped operator's platform at the rear of the machine.

FAST-RESPONDING ELECTRONIC SLOPE SENSOR

> ERGONOMIC MULTI-FUNCTIONAL ARMREST

# VARIABLE OPERATOR'S PLATFORM

FULL VIEW OF THE RIGHT-HAND SIDE PLATE AND IMPORTANT WORK AREAS

# Highlights in driving and steering



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# ELECTRONICALLY CONTROLLED TRACTION DRIVE

The electronically controlled traction drive with one transport and two milling speeds allows precise manoeuvring for highly precise milling results.

# HYDRAULIC ALL-WHEEL DRIVE

The hydraulic all-wheel drive system offers high traction both in challenging site conditions and during loading.

# PRECISE HEIGHT ADJUSTMENT

The electrohydraulic two-stage height adjustment feature enables precise adjustment of the milling depth.

# MEMORY FUNCTION FOR HEIGHT ADJUSTMENT

To allow quick, convenient height adjustment, three different height positions per machine side can be saved on memory buttons in the multifunctional armrest.

# PRECISE STEERING

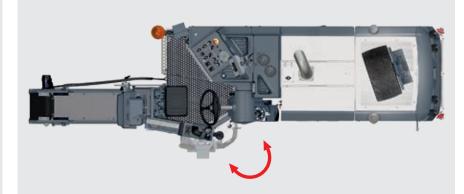
The machine's hydraulic steering system ensures fast, yet precise steering manoeuvres. When operating the machine from the platform at the rear, steering can be conveniently effected electronically via the steering function integrated in the multifunctional joystick.

# EXTREMELY COMPACT MACHINE DESIGN

Its compact design not only enables the small milling machine to work in extremely restricted space conditions and pass through narrow workshop doors but also ensures easy transport.

# EXCELLENT MANOEUVRABILITY AND EXTREMELY SMALL MILLING RADII

Large steering angles to both sides permit fast manoeuvring and turning on the construction site. They additionally ensure the smallest inner milling radius in this machine class.



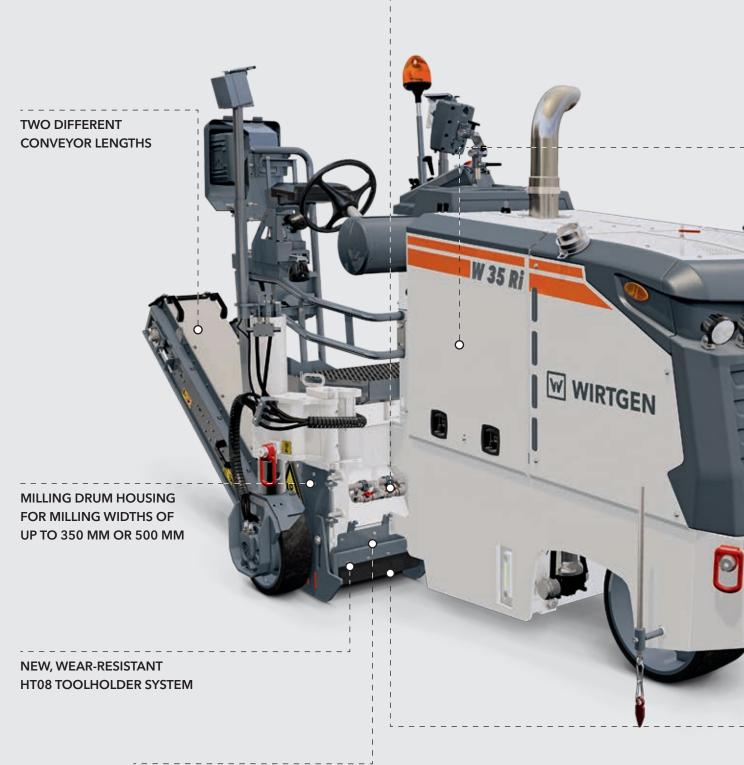
Large steering angles and compact design.

# EXTREMELY COMPACT MACHINE DESIGN



EXCELLENT MANOEUVRABILITY AND EXTREMELY SMALL MILLING RADII

# Highlights in milling and loading



THREE DIFFERENT MILLING DRUM SPEED OPTIONS

# POWERFUL WATER SPRAY SYSTEM AT THE MILLING DRUM

# MILLING POWER CONTROL FOR MAXIMUM ADVANCE SPEEDS



QUICK EXCHANGE OF MILLING DRUMS

# THREE DIFFERENT MILLING DRUM SPEED OPTIONS

Three different milling drum speed options enable high milling performance in a wide range of applications.

# NEW, WEAR-RESISTANT HT08 TOOLHOLDER SYSTEM

The newly developed HT08 toolholder system impresses with high wear resistance and an extended lifespan.

# MILLING DRUM HOUSING FOR MILLING WIDTHS OF UP TO 350 MM & 500 MM

In standard design, the milling drum housing accommodates milling drums offering a working width of up to 350 mm. Milling drums offering working a width of up to 500 mm can be fitted in accordance with customer requirements. A wide variety of original WIRTGEN standard and special milling drums are on offer.

# TWO DIFFERENT CONVEYOR LENGTHS

Conveyor lengths of 1,300 mm or 1,900 mm respectively round out the machine's wide range of applications.

### POWERFUL WATER SPRAY SYSTEM AT THE MILLING DRUM

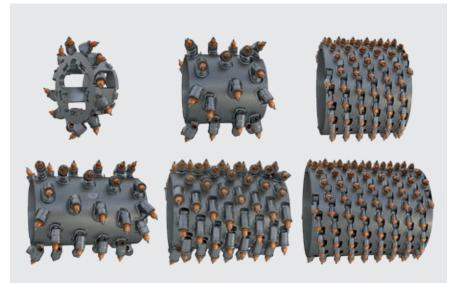
In combination with the water spray bar, the powerful load-controlled water pump not only ensures reliable tool cooling and long uptimes but also prevents the development of dust. In addition, it provides consistently high water pressure for easy cleaning of the machine on site.

## MILLING POWER CONTROL FOR MAXIMUM ADVANCE SPEEDS

The engageable electronic load limit controller governs the advance speed in accordance with the engine load, thus enabling the small milling machine to always work at the ideal milling speed.

#### QUICK EXCHANGE OF MILLING DRUMS

Milling drums are exchanged quickly thanks to the wide-opening door on the right-hand side and intelligent mounting aids.



A wide variety of different milling drums for a wide range of applications.

# Highlights in performance and productivity



**AUTOMATED FUNCTIONS** 

## SUPPLEMENTARY WEIGHTS

The wide ballasting range comprising separately removable weight slabs of up to 1,400 kg altogether increases the machine's range of applications.

# PERFECTLY ARRANGED LED WORKING LIGHTS

Perfectly arranged LED working lights ensure full illumination of the entire surroundings of the machine.

# STATE-OF-THE-ART WITOS TELEMATICS SYSTEM

The new WITOS telematics system assists with fleet management as well as with the planning, administration and execution of construction processes, improving efficiency in day-to-day operation.

# QUICK AND EASY MAINTENANCE

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

# **OPTIONAL DIESEL PARTICULATE FILTER**

The diesel particulate filter optionally available as original equipment meets even stricter emission requirements, for example, during indoor milling operations.

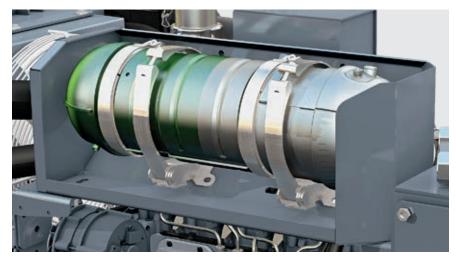
# POWERFUL ENGINE COMPLYING WITH EMISSION STANDARDS EC STAGE 3B/US TIER 4 FINAL

The powerful diesel engine with temperature-related fan speed ensures quiet, economical operation and high reserve capacities for fast milling regardless of the milling depth. The engine additionally complies with the currently strictest emission standards EC Stage 3b/US Tier 4 Final.

# MANY NEW AUTOMATED FUNCTIONS

The WIDRIVE machine management system greatly improves operator comfort and increases performance by controlling the engine speed and travel speed or switching the water spray system on and off.

# POWERFUL ENGINE COMPLYING WITH EMISSION STANDARDS EC STAGE 3B/US TIER 4 FINAL



A diesel particulate filter ensures compliance with strict emission standards.

# OPTIONAL DIESEL PARTICULATE FILTER

# **Technical specification**

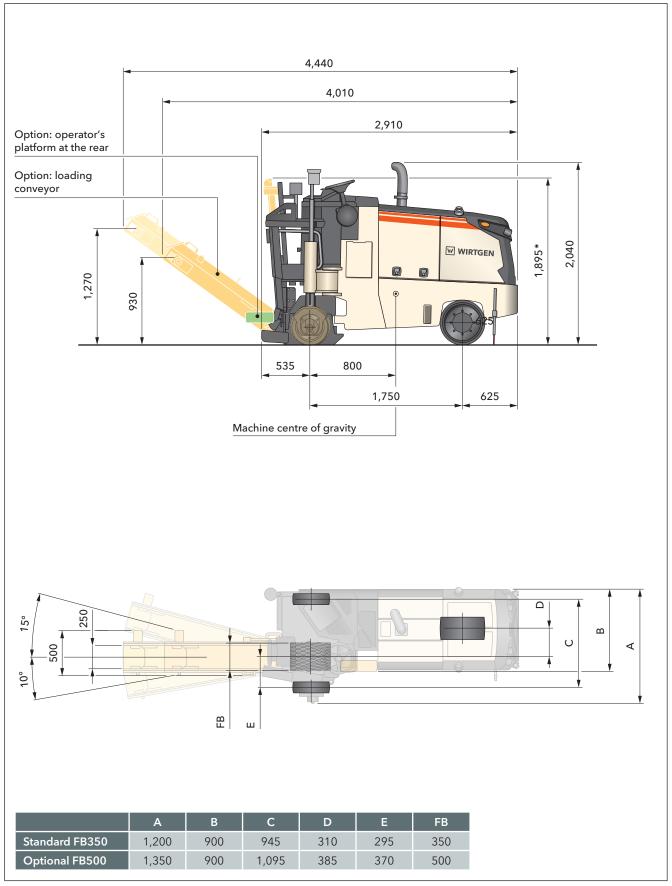
	Standard FB350	Optional FB500
Milling drum		
Milling width	350 mm	500 mm
Milling depth *1	0-110 mm	
Drum diameter with tools	460 mm	
Engine		
Engine manufacturer	Deutz AG	
Туре	TCD 2.9 L4	
Cooling	water	
Number of cylinders	4	
Rated power at 2,300 min <sup>-1</sup>	45 kW/60 HP/61 PS	
Maximum power at 2,300 min <sup>-1</sup>	45 kW/60 HP/61 PS	
Displacement	2,925 cm <sup>3</sup>	
Fuel consumption at rated power	13.2 l/h	
Fuel consumption in field mix	8.8 l/h	
Emission standards	EC Stage 3b/US Tier 4f	
Electrical system		
Electrical power supply	24 V	
Tank capacities		
Fuel tank	70	
Hydraulic oil tank	32	
Water tank	275	
Driving properties		
Max. milling speed	0-25 m/min (0-1.5 km/h)	
Max. travel speed	0-100 m/min (0-6 km/h)	
Tyres		
Tyre size, front (Ø x W)	500 x 250 mm	
Tyre size, rear (Ø x W)	405 x 130 mm	
Loading of the milled material		
Belt width of discharge conveyor	250 mm	
Theoretical capacity of discharge conveyor	33 m³/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 without tank contents	2,970 kg	
Operating weight, CE*2	4,670 kg	
Operating weight, max. (full tanks, full range of equipment)	5	,120 kg
Weights of tank contents		
Water tank filling		275 kg
Diesel tank filling (0.83 kg/l)		58 kg
Additional add-on weights		
Driver and tools		
Driver	75 kg	
Weight of 2 cutting tool containers		50 kg
On-board tools		30 kg
Optional milling drum assemblies in lieu of standard	Absolute weight	Added/reduced weight
Ancillary parts milling drum housing FB350, for machine with discharge conveyor	51 kg	29 kg
Ancillary parts milling drum housing FB500, for machine with discharge conveyor	100 kg	78 kg
Ancillary parts milling drum housing with extension to FB500, for machine without discharge conveyor	161 kg	139 kg
Optional milling drums in lieu of standard		
Fine Milling drum FB350 HT05 LA6 with 57 picks	108 kg	18 kg
Micro-fine milling drum FB350 HT04 LA3 with 117 picks	103 kg	13 kg
Milling drum FB500 HT08 LA15 with 39 picks	123 kg	33 kg
Fine Milling drum FB500 HT05 LA6 with 82 picks	160 kg	70 kg
Micro-fine milling drum groove profile, FB150+2x25 (side outlet) HT04 LA3 with 67 picks	97 kg	7 kg
Milling drum FB200+2x25 HT04 LA3 with 83 picks	98 kg	8 kg
Milling drum FB250+2x25 HT04 LA3 with 99 picks	100 kg	10 kg
Milling drum FB300+2x25 HT04 LA3 with 117 picks	100 kg	10 kg
Milling drum FB450+2X25 HT04 LA3 with 166 picks	143 kg	53 kg
Saw blade FB14 rail milling	10 kg	- 80 kg
Saw blade FB19 rail milling	13 kg	- 77 kg
Ancillary parts rail milling Ri59N	57 kg	57 kg
Milling drum FB25 with 24 picks rail milling	17 kg	- 73 kg
Milling drum FB45 with 24 picks rail milling	28 kg	- 62 kg
Milling drum FB80 HT02 MD110 with 12 picks	26 kg	- 64 kg
Optional supplementary weights		
Supplementary weights for flexible use	1,400 kg	1,400 kg
Optional additional equipment		
Shortened discharge conveyor, 1,300 mm long, conveyor belt width 250 mm	100 kg	100 kg
Discharge conveyor, 1,870 mm long, conveyor belt width 250 mm	125 kg	125 kg
Step device for FB350 with conveyor	18 kg	0 kg
Step device for FB500 with conveyor	22 kg	0 kg
Lowered operator's stand behind the machine	51 kg	51 kg
Mounting side milling wheel FB80 (3"), FT180 compl.	196 kg	84 kg
Hydraulic hammer with 10 m connection hose	37 kg	37 kg

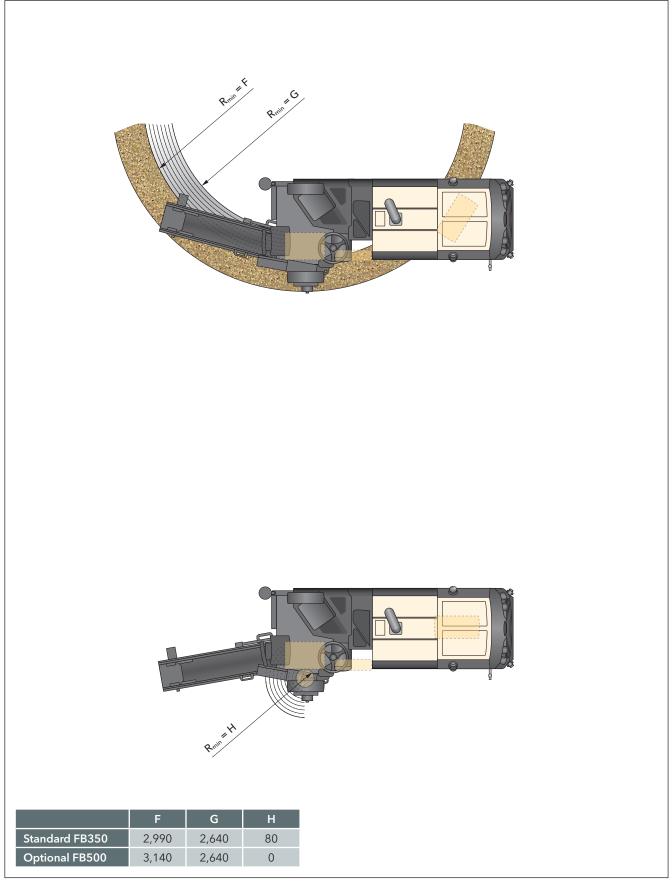
\*2 = Weight of machine with half-full water tank, half-full fuel tank, driver (75 kg) and on-board tools, excluding optional equipment

# Dimensions



Dimensions in mm

\* = Maximum machine height with exhaust pipe removed



Milling radius, 50 mm milling depth, dimensions in mm

# **Standard equipment**

Base machine	
Basic machine with engine	
Robust machine chassis	
Wide opening engine covers, with gas spring support and highly effective noise insulation	
Radiator with temperature-dependent fan speed	
Integrated 275 litre water tank	
Integrated 70 litre diesel tank	
Loading and tie-down points integrated in the chassis	•
Water injection strip with on/off function for pick cooling with water pump with load-dependent control	
Wide opening milling drum door with automatic electrical safety shut-down	
Right side plate in hinged configuration in conjunction with centring pin system on the milling drum holder for quick and easy change of milling drums	-
Milling drum unit	
Ancillary parts milling drum housing FB350, for machine without discharge conveyor	
Milling drums	
Milling drum FB350 HT08 LA15 with 31 picks	
Machine control and levelling system	
WIDRIVE machine controller to reduce operator workload and increase performance	•
Mechanical milling depth display via gauge right and left	
Operator's stand	
Flexibly mounted operator's stand on the top of the machine	
Multi-function armrest on right with up/down and front/back adjustment with joystick and various controls ergonomically arranged	-
Display for important machine parameters on the left control panel	
Convenient operating console with practical switches	
Convenient footstep to the operator's stand	
Operator's stand with vibration damping	
Steering bracket with slope adjustment function	
Covers for operating panels with lock	

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

Under-carriage and height adjustment	
Hydraulic 3-wheel all-wheel drive with hydraulic flow distributor	-
Two manually engageable milling speeds as well as one travelling gear	
Hydraulic, easy front wheel steering	
Hydraulic spring-loaded multi-disc brake	
Hydraulic height adjustment with two speeds at the rear crawler units	
Manually folding-in rear right wheel	
Others	
Lockable tool box with set of tools for maintenance and servicing	
Additional mount for a pick bucket	•
Device for towing away for releasing the spring-loaded multi-disc brake	-
Reversing horn	•
Extensive safety package with EMERGENCY STOP switch	•
European type test certificate and CE conformity	
Exhaust post-treatment diesel oxidation catalyst DOC	
Exhaust post-treatment diesel oxidation catalyst DOC with diesel particulate filter DPF	
Machine without additional hydraulic drive	
Paint standard cream RAL 9001	
Halogen lighting package including rotating beacon	

# **Optional equipment**

Milling drum unit	
Ancillary parts milling drum housing FB350, for machine with discharge conveyor	
Ancillary parts milling drum housing FB500, for machine with discharge conveyor	
Ancillary parts milling drum housing with extension to FB500, for machine without discharge conveyor	
Milling drums	
Fine Milling drum FB350 HT05 LA6 with 57 picks	
Micro-fine milling drum FB350 HT04 LA3 with 117 picks	
Milling drum FB500 HT08 LA15 with 39 picks	
Fine Milling drum FB500 HT05 LA6 with 82 picks	
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Milling drum FB450+2X25 HT04 LA3 with 166 picks	
Saw blade FB14 rail milling	
Saw blade FB19 rail milling	
Ancillary parts rail milling Ri59N	
Milling drum FB25 with 24 picks rail milling	
Milling drum FB45 with 24 picks rail milling	
Milling drum FB80 HT02 MD110 with 12 picks	
Milled-out material loading	
Shortened discharge conveyor, 1,300 mm long, conveyor belt width 250 mm	
Discharge conveyor, 1,870 mm long, conveyor belt width 250 mm	
Connection pipe Ø 120 mm for dust extraction	
Machine control and levelling system	
LEVEL PRO PLUS levelling system right and left	
Basic equipment for laser levelling - without laser transmitter	
RAPID SLOPE lateral tilt sensor for LEVEL PRO PLUS levelling system	
Pre-programmable height positions with automatic positioning	

Standard equipment
Standard equipment, replaceable with optional equipment

= Optional equipment

Operator's stand	
Equipment of the operator's stand with a standing seat	
Step device for FB350 with conveyor	
Step device for FB500 with conveyor	
Lowered operator's stand behind the machine	
Under-carriage and height adjustment	
Mounting side milling wheel FB80 (3"), FT180 compl.	
Others	
Hydraulic drive for discharge conveyor or hydraulic jack hammer	
Paint in one special colour (RAL)	
Paint in two special colours (RAL)	
Paint in maximum two special colours with substructure in special colour (RAL)	
High-power lighting package LED including rotating beacon	
Modular additional weight 1,400 kg	
Adapter with saw blade FB14, MD100	
Adapter with saw blade FB19, MD100	
Hydraulic hammer with 10 m connection hose	
WITOS FleetView telematics system incl. 3-year operating period	
WITOS FleetView telematics system incl. 3-year operating period - PROMOTION	



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